

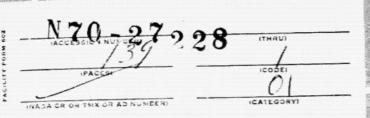
## HIGH-LOADING LOW-SPEED FAN STUDY II. DATA AND PERFORMANCE UNSLOTTED BLADES AND VANES

by
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prepared for National Aeronautics and Space Administration

> NASA Lewis Research Center Contract NAS3-10483 T. F. Gelder, Program Manager Fluid Systems Components Division





## Pratt & Whitney Aircraft DIVISION OF UNITED AIRCRAFT CORPORATION



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Enclosed herewith is an errata sheet for report number CR-72667 entitled:

High-Loading Low-Speed Fan Study II Data and Performance Unslotted Blades and Vanes.

UNITED AIRCRAFT CORPORATION Pratt & Whitney Aircraft Division

K. G. Harley

Assistant Project Engineer

#### **ERRATA**

#### NASA Contractor Report CR-72667

#### HIGH-LOADING LOW-SPEED FAN STUDY

#### II DATA AND PERFORMANCE

#### UNSLOTTED BLADES AND VANES

By K. G. Harley and E. A. Burdsall

Page 13, paragraph 3, line 9: Insert the words "area at the screen axial location" after the words "inlet annulus".

Page 19, paragraph 3, line 2: Insert the words "rotor-blade" after the words "first-bending".

Page 71, Figure 32: The position of the screen should be from 73 to 100 percent span at the screen axial location instead of 60 to 100 percent span.

Page 97, Figure 45: The ordinate scale values should be 113, 117, 121, 125, 129, and 133 instead of 118, 122, 126, 130, 134, and 138.

Page 109, Appendix 1: Delete all parenthetical references to table numbers.

Page 118: Replace with attached table. Values followed by a dot have been changed to provide better agreement and accuracy.

Date of publication, May 1970, was omitted.

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## HIGH-LOADING LOW-SPEED FAN STUDY II. DATA AND PERFORMANCE UNSLOTTED BLADES AND VANES

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NASA Lewis Research Center Contract NAS3-10483 T. F. Gelder, Program Manager Fluid Systems Components Division

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#### **FOREWORD**

This report was prepared by the Pratt & Whitney Aircraft Division of United Aircraft Corporation, East Hartford, Connecituct, to present data and performance of the unslotted tests conducted under Contract NAS3-10483, High-Loading Low-Speed Fan Study.

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#### **ABSTRACT**

High-Loading, Low-Speed Fan Study

II. Data and Performance, Unslotted Blades and Vanes

A single-stage fan with a tip speed of 1000 ft/sec (304.8 m/sec) and a hub-tip ratio of 0.392 was tested from 65 to 110 percent of design speed. The tests were conducted with uniform inlet flow and with the inlet flow distorted both radially and circumferentially. At design speed, maximum stage pressure ratio was 1.484 and maximum efficiency was 88.1 percent. Stator-hub-slit suction was used to improve stator performance. Noise measurements were made at the stage inlet and exit and show trends different from those of other fans.

#### I. SUMMARY

Tests were conducted to determine detailed aerodynamic and some acoustic characteristics of a highly-loaded single-stage fan. The stage consisted of a low-tip-speed rotor separated from the stator by two rotor-chord lengths. In addition to tests with uniform inlet flow, tests were conducted with the inlet flow distorted both radially and circumferentially. Stator-hub-slit suction was investigated to determine its effect on aerodynamic performance. Acoustic measurements were taken in the inlet plenum and downstream of the stator vanes.

Over-all performance tests with uniform-inlet flow at 100 percent of design speed demonstrated a peak stage efficiency of 88.1 percent and a pressure ratio of 1.484 at a near-stall throttle setting. At design speed and weight flow, a stage pressure ratio of 1.458 and an efficiency of 84.8 percent were obtained compared with design values of 1.5 and 87.3 respectively. Little stall margin existed at 100 percent of design speed and above.

Rotor mid-span losses at near-stall are lower than predicted for design speed. Rotor-hub losses are considerably higher than design, as are rotor-tip deviation angles. Stator spanwise losses at near-stall are less than predicted for design speed. Stator-hub losses are higher than those of the tip, even with stator-hub-slit suction. Blade loadings in terms of diffusion factor were accurately predicted as 0.53 at 5 percent span from the rotor tip and 0.61 at 5 percent from the stator hub.

Stator-hub-slit suction reduced stator-hub losses, so that over-all efficiency at 100 percent of design speed was improved by 1½ percent. A slit flow of approximately 0.2 percent of total inlet flow was used.

Imposed inlet distortions, either radial (outer two-fifths of the annulus area) or circumferential (90-degree sector) caused only small decreases in over-all efficiency and pressure ratio from the values for undistorted flow performance. The radial distortion reduced the stall margin at lower speeds. With circumferential distortion, the stall margin appeared to be slightly improved.

Upstream broadband noise generated by the stage was relatively constant over the range of speeds and flows tested, whereas other fan stages tested in the same facility have shown increased broadband noise with increased tip relative Mach number. Sound-pressure levels of blade-passing-frequency noise increase with increased blade tip relative Mach number. Supersonic fan noise (combination noise) existed only at 105 percent design speed and above.

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#### II. INTRODUCTION

The objective of this program is to determine the aerodynamic performance characteristics of a highly-loaded low-speed fan stage that would be applicable to a low-noise engine. Since fan noise is related to the physical characteristics of the stage and its operating conditions, an attempt has been made in the design of this stage to reduce fan noise by (1) eliminating inlet guide vanes, (2) designing for low rotor-tip Mach numbers, (3) spacing the rotor and stator apart by two rotor chord lengths, and (4) selecting a number of stator vanes equal to twice the number of rotor blades, plus sixteen. Design details are reported in Reference 1.

Creating a useful pressure ratio with low tip speeds requires larger rotor turnings (relative air angles past the axial direction at the hub), high stator inlet Mach numbers, and high aerodynamic blade loadings. The high loadings limit the potential for stall margin and for tolerance to inlet distortion.

Tolerance to inlet distortion can be the most significant single factor in determining engine operating stability. Inlet distortion may change the performance of a compressor in several ways. Efficiency and the speed-flow relationship may be altered, but the most significant possibility is that the stall-limit may move closer to the engine operating line. Tests were therefore conducted with both radial and circumferential inlet-flow distortions in addition to the tests with uniform inlet flow.

The fan was designed with a flow per unit of annulus area at the rotor leading edge of 42 lb/sec/ft<sup>2</sup>, and with an over-all pressure ratio of 1.50. The designed rotor tip speed is 1000 ft/sec, and design stator inlet Mach number range is from 0.90 at the hub to 0.70 at the tip. Air turning at the rotor hub is 72.6 degrees, which results in a rotor exit relative air angle of -39.6 degrees. The rotor and stator aspect ratios are 1.92 and 3.67 respectively. There are 24 rotor blades and 64 stator vanes.

This report presents the test results for this highly-loaded, low-tip speed fan stage, with and without radial and circumferential distortion. Test results include detailed aerodynamic performance and some data on noise.

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#### A. Test Facility

The test program was carried out in the sea-level X-202 stand (Figure 1) at the Willgoos facility. The stand is equipped with a gas-turbine-drive engine using a 2.1:1 gearbox to provide optimum speed-range capability.

Entering airflow is measured through a calibrated nozzle. From the nozzle, it flows through a 72-foot straight section of 42-inch diameter pipe to a 90-inch diameter inlet plenum. Wiremesh screen and an "egg-crate" structure are located midway through the plenum to provide uniform pressure to the compressor.

The compressor discharge flow is exhausted into a toroidal collector and then into a six-foot-diameter discharge stack. A six-foot-diameter valve in the stack provides back pressure for the test compressor. Two smaller valves in the bypass lines, one 24-inch and one 12-inch, provide vernier control of back pressure.

Bleed suction for stator hub end-wall slits is provided by exhausters at the Willgoos facility. Eight bleed lines provided the air passage from the stator hub cavity to the exhaust header in the stand.

Twelve inlet struts, supporting the slip-ring assembly and the inlet fairing are located 22 inches upstream of the rotor (Figure 2). The forward end of the nose fairing extends 30 inches upstream of the rotor leading edge during uniform inlet tests and 39 inches upstream during distortion tests. Inlet distortion and support screens were 32 inches upstream of the rotor for distortion testing only (Figure 2). The distortion support screen (Figure 3) is shown with instrumentation lead wires protruding from the non-rotating nose fairing. The inlet support struts and non-rotating nose fairing (Figure 4) were replaced with a short rotating nose cone for most of the noise tests. Eight discharge support struts were located 7 inches downstream of the stator.

#### B. Test Compressor

The test compressor (Figure 2) is a single-stage design with no inlet guide vanes. The overall flowpath convergence was determined by setting the inlet-to-exit axial velocity roughly at unity. A constant outer diameter was chosen to permit maximum flow convergence at the rotor hub, allowing maximum rotor-exit wheel speed and thereby reducing the amount of rotor hub turning necessary for a given pressure ratio. Running tip-clearance was 0.025 inch at 100 percent of design speed. Static tip clearance was 0.043 inch.

Design values for the rotor and stator from NASA CR-72536 (Reference 1) are as follows:

#### 1. Rotor

The pressure ratio for the rotor alone was set constant at 1.54 from root to tip. A design tip speed of 1000 ft/sec limits the relative tip Mach number to 1.13. The rotor inlet flow

flow per unit area is 42.0 lb/sec/ft<sup>2</sup>. The rotor was designed with an aspect ratio of 1.92 and a rotor inlet hub-tip ratio of 0.392. Twenty-four blades with multiple-circular-arc sections were used; a typical blade is shown in Figure 5. Rotor-blade metal angles for the nine streamlines at which blade-element data were obtained are given in Table 1. The streamlines chosen pass through 5, 10, 15, 30, 50, 70, 85, 90 and 95 percent of rotor-blade trailing edge passage height. Aerodynamic design data are presented in Appendix 2. Symbols and performance parameters are defined in Appendix 1.

The total rotor losses in Appendix 2 are the estimated losses used in blade design. However, the profile losses in Appendix 2 do not agree with the loss correlation in the design report (Reference 1, Figure 35), which were derived by subtracting normal shock model losses from high-speed-rotor loss data. This type of shock model may reflect too large a portion of the total loss, resulting in low profile losses. Initial estimates of supersonic turning resulted in large supersonic acceleration and high shock losses, which compensated for the low profile losses. Design iterations reduced the amount of supersonic turning, but adjustments were not made to reapportion the shock and profile losses because the total loss was realistic, based on other low-speed-rotor data. The latest P&WA data indicate that the profile loss correlation in Figure 35 of the design report should be increased by 0.005 if the normal shock model is to be used in the low-speed range.

TABLE 1
Rotor Design Data
(Stations 5 and 6 of Figure 9)

	%	Dia. In,	Dia. Out,	β' <sub>5</sub> *	β' <sub>6</sub> *	β* <sub>5s</sub>	βsh
	Span	inches	inches	<u>degrees</u>	degrees	degrees	degrees
Hub	5	13.12	16.03	34.17	-36.78	41.08	27.18
	10	14.10	16.79	35.01	-31.13	41.66	28.44
	15	15.17	17.58	36.17	-26.88	42.46	29.31
	30	18.28	19.91	39.54	-13.70	45.23	32.64
	50	22.19	23.09	43.57	4.53	48.58	38.14
	70	25.88	26.26	46.96	20.02	51.19	43.54
	85	28.45	28.61	49.58	30.03	53.29	46.56
	90	29.32	29.41	50.56	32,29	54.09	47.69
Tip	95	30.15	30.18	51.58	34.15	54.97	48.69

#### 2. Stator

The stator (Figure 6) is a multiple-circular-arc airfoil designed on conical surfaces approximating streamlines of revolution. The number of stator vanes was set by acoustical considerations at twice the number of rotor blades plus sixteen, for a total of 64. The stator has a constant radially-projected chord of 1.83 inches and an aspect ratio of 3.67.

Stator-vane metal angles for the nine streamlines at which data were obtained are summarized in Table 2. Aerodynamic design data are given in Appendix 2. The streamlines chosen pass through 5, 10, 15, 30, 50, 70, 85, 90, and 95 percent of rotor-blade trailing-edge-passage-height from the hub.

TABLE 2
Stator Design Data
(Stations 11 and 12 of Figure 9)

	% Span	Dia. In, inches	Dia. Out, inches	β <sup>*</sup> <sub>11</sub> degrees	β <sub>12</sub> degrees	β <sup>*</sup> 11s degrees	β*h degrees
Hub	5	17.72	18.58	45.34	-16.48	49.29	39.06
	10	18.35	19.11	43.27	-15.92	47.52	37.19
	15	19.07	19.74	41.41	-15.42	45.74	35.31
	30	21.14	21.60	37.70	-13.97	42.49	32.50
	50	23.97	24,20	34.03	-10.74	39.51	30.05
	70	26.79	26.88	31.46	-12.79	37.56	27.83
	85	28.86	28.90	30.22	-15.02	36.72	26.56
	90	29.57	29.60	30.22	-15.73	36,82	26.37
Tip	95	30.24	30.27	30.42	-16.33	37.17	26.34

To prevent boundary-layer separation and to improve lift coefficient, a slit was designed for suction at the stator hub. The slit (Figure 7) is 0.017 inch wide and is located on the suction-surface corner of the vane and the inner case, and it extends from 15 to 85 percent of airfoil chord.

#### C. <u>Instrumentation and Calibration</u>

#### 1. Aerodynamic Instrumentation

Airflow was measured with a flow nozzle designed to ISA flow-nozzle specifications (Reference 2). Accuracy of the flow-rate measurement was within one percent of the reading. Compressor speed was measured with an impulse-type pickup, and electromagnetic device that counts the number of gear teeth passing within an interval of time and converts the count to revolutions per minute. The accuracy of the speed measurement was within 0.2 percent of the indicated speed between 3600 and 8900 rpm.

Instrumentation (Figure 8) for measuring over-all and blade-element performance data is listed in Table 3. Axial and circumferential positions of instrumentation are shown in Figures 9 and 10. All traversing probe measurements were recorded at nine radial locations defined by design streamlines which pass the rotor trailing edges at 5, 10, 15, 30, 50, 70, 85, 90, and 95 percent from the hub. Fixed radial rakes for measuring total pressure near the rotor leading edge (Station 4, Figure 9) were in place only during testing with inlet flow distortions.

TABLE 3

PERFORMANCE AND BLADE-ELEMENT INSTRUMENTATION

	Instrument Plane Location	Parameter	Type and Quantity
Station 0	plenum chamber	P	6 pressure taps on plenum wall, 4 on automatic data-acquisition system t <sup>*</sup> insducers, 2 on mano- meters
		Т	6 bare wire thermocouples, 4 on automatic data-acquisition system, 2 on self-balancing precision potentiometers
		inlet noise	8 condenser-type microphones
Station 0.1 Station 0.2 Station 1.1 Station 2.1		p	2 O.D. and 2 I.D. wall static taps located top and bottom dead center
Station 4	rotor inlet	P, p, <b>ß</b>	2 disk traverse probes 180 de- grees apart, 9 radial positions*
		p	4 O. D. and 4 I. D. wall static taps
		P	2 fixed radial rakes spaced 180 degrees apart, 9 radii*
Station 6.1	rotor exit	p	4 O.D. and 4 I.D. wall static taps
Station 10	stator inlet	P, p, β	1 disk traverse probe, 9 radial positions*
		p	4 O.D. and 4 I.D. wall static taps located on extension of mid-channel line
		p	4 O.D. and 4 I.D. wall static taps spaced across vane gap

#### TABLE 3 (Cont'd)

#### PERFORMANCE AND BLADE-ELEMENT INSTRUMENTATION

	Instrument Plane Location	Parameter	Type and Quantity
Station 11	stator leading edge	P	2 sets of impact tubes at 9 radii*
Station 13	stator exit	P	2 equally spaced, 14-element circumferential wake rakes traversable to each of nine radial locations.*
		T	6 fixed radial temperature rakes at each of 9 radii*, spaced circumferentially to obtain readings across a vane gap. A 7th probe located 180 degrees from a probe spaced in the center of a channel was installed for checking purposes and subsequent distortion testing.
		P, p, <b>β</b>	2 disk traverse probes, 9 radial positions*
		p	4 O.D. and 4 I D. wall static taps located on extension of mid-channel line
		p	4 O. D. and 4 I. D. wall static taps spaced across vane gap
		downstream noise	1 crystal microphone
Station 15.1	rig exit	P	1 fixed five-element radial rake

<sup>\*</sup>Radial position of each axial station defined as the intersection of the axial station and the design streamline which passes through 5, 10, 15, 30, 50, 70, 85, 90, and 95% of passage-height loc. Cons at rotor trailing edge.

All pressures from probes, fixed rakes, and static taps were measured with transducers and recorded in millivolts by an automatic data-acquistion system. Pressure accuracy is within 0.2 percent of the full-scale value. Disk probes were calibrated for Mach number as a function of indicated static-to total pressure ratio, with pitch angles as a parameter. Total pressure recovery and yaw angle deviation were calibrated as functions of Mach number and pitch angle. Air-angle position accuracy is within one percent.

All temperatures were measured with chromel-alumel Type K thermocouples and were recorded in millivolts by the automatic data-acquisition system. Temperature elements and leadwires were calibrated over their full operating temperature range. Temperature recovery was calibrated as a function of Mach number. Variations of the recovery correction with pressure were applied as noted in Reference 3. Over-all RMS temperature accuracy was estimated to be within 0.7°F.

Various parameters (Table 4) were continuously recorded on a 14-track tape recorder during excursions into stall. To detect and evaluate rotating stall, three quartz-crystals were located at the rotor exit at 25, 50, and 85 percent from the hub and at unequal circumferential locations. These were used to record pressure pulses continuously when operating near or within the stall region at 70, 90, and 100 percent of design speed.

Critical stationary and rotating parts were instrumented with strain gages to determine the levels of steady and vibratory stress over the operating range of the compressor.

#### 2. Acoustic Instrumentation and Calibrations

Compressor inlet noise was measured by microphones (Figure 11) in the fan inlet plenum chamber. Acoustic characteristics of the chamber were investigated to determine the number and location of microphones needed to calculate the acoustic power output from the inlet of the fan stage. Both reverberation time and sound-pressure-level-distribution surveys were conducted to evaluate the chamber characteristics.

The reverberation time of a room is defined as the time required for the mean squared sound pressure level therein (orginally in a steady state) to decrease 60 dB after the source is stopped. Reverberation times greater than about 1.2 seconds are indicative of reverberant fields, as described in the General Radio Noise Handbook (1968) and other standard texts.

To evaluate the reverberation characteristic of the inlet plenum, an acoustic driver with a capacity of 75 acoustic watts was placed in the same axial plane as the fan rotor, with the rotor removed. The input to the driver of one-third octave-band filtered pink noise covering the frequency range from 500-10,000 Hz. Signals from three microphones fixed within the plenum chamber were processed through a one-tenth-octave band filter and recorded on a strip chart as a function of time. A block diagram of the instrumentation system used to obtain these data is shown in Figure 12. Results of these tests (Figure 13) show that the reverberation time, as a function of frequency, varies from approximately 2.8 sec. at 500 Hz to 1.8 sec. at 10,000 Hz, thus constituting a reverberant field over the frequency range of interest.

TABLE 4
CONTINUOUSLY RECORDED PERFORMANCE INSTRUMENTATION

	Instrument Plane Location	Parameter	Type and Quantity
Station 0.1	bellmouth	p	static pressure
	downstream	p	1 O.D. wall static tap
Station 4	rotor inlet	p	1 O.D. wall static tap
Station 6.1	rotor exit	P, frequency	3 quartz-crystal dynamic- pressure probes, at unequal circumferential spacing. Sensors located at 25, 50, and 85% of blade height from hub (for detection of rotating stall)
Station 10	stator inlet	p	1 O.D. wall static tap
Station 11	stator leading edge	P	3 impact tubes located at 5, 50, and 95% of passage height
Station 13	stator exit	p	1 O.D. wall static tap
Station 15.1	rig exit	P	1 element of fixed 5-element radial rake
	gearbox	N	impulse pickup in gearbox

To complete the determination of the acoustic characteristics of the plenum chamber, axial and radial sound-pressure surveys of the chamber were made for octave bands of pink noise (equal energy per octave) as well as discrete-frequency tones at 1000, 2000, 3000, 5000, and 7000 Hz. Microphone readings were recorded at six-inch intervals in the radial plane. Figure 14 shows the observed sound pressure levels of both broadband and discrete-frequency noise plotted against radial distance from one wall of the plenum. The broadband noise levels vary 6 dB radially within any one octave. The discrete-frequency data show variations as much as 20 dB, which are due to standing-wave patterns within the chamber. Because the locations of the maximum and minimum pressures in the standing-wave pattern vary with frequency, the output of any one microphone placed in a fixed location within the chamber cannot yield an accurate indication of the discrete-sound-pressure levels in the chamber over the entire compressor operating range. As a result of these investigations, eight microphone positions (Figure 11) were selected to sample compressor inlet noise.

A one quarter-inch-diameter dynamic pressure transducer was installed in a probe, one inch downstream of the stator trailing edge (Figure 11) to obtain blade-passing-frequency data downstream of the fan stage. Three different radial locations of the probe were investigated during the shakedown tests. The position selected for the noise tests showed the highest ratio of blade-passing-signal to background-signal over most of the operating range.

A block diagram of the acoustic recording system used during the compressor tests is shown in Figure 15. The output of each microphone and the one-quarter-inch-diameter transducer was placed into a monitoring instrument which applied a positive or negative gain to the signal in order to meet the optimum input voltage range of the tape recorder. All data were recorded in the FM mode on magnetic tape at a speed of 30 inches per second.

#### D. Test Procedure

Vibrational stress surveys were made along operating lines at wide-open and near-stall throttle. Steady-state surveys were made along the wide-open throttle operating line.

Tests to identify rotating stall, which is characterized by low flow zones rotating about the compressor axis, were conducted from wide-open to stall throttle at 70, 90, and 100 percent of design speed. Quartz-crystal dynamic pressure probes at the rotor exit (Station 6.1, Figure 9) were used for detecting rotating stall. Data from these probes were recorded on magnetic tape together with rotor and stator vibratory stresses. Continuously recorded performance data (Table 4) with the exception of the quartz-crystal data, were continuously recorded at the rate of ten readings per second on printed tape. In addition to the automatic recordings, rotor speed and nozzle differential pressures were also manually recorded. Stall limit flow was calculated by using nozzle data from either the manual records or the printed tape. Stall was characterized by an abrupt increase in flow-nozzle downstream static pressure as the throttle was slowly closed. Indicatons of rotating stall from the crystal probes were not correlated with airflow measurements.

Stator-hub-slit suction was investigated at 100 percent of design speed to determine its effect on aerodynamic performance. Seven operating points were recorded with stator-slit suction and an equal number with the slits sealed. Three additional points were taken without suction,

allowing the hub boundary-layer air to recirculate down through the slit and manifold. These tests demonstrated that performance was improved with slit suction, and the remaining tests were made with stator-hub-slit suction.

When the seven traverse probes were simultaneously immersed, there were data inaccuracies caused by probe blockage. However, it was possible to divide the probes into two groups, with no interference effects within either group. All four stator discharge probes (two -wakerakes, two disk probes) were immersed simultaneously during a second sequence. Each traverse sequence was preceded by a fixed instrumentation reading to furnish a check on the compressor operating condition. Uniform inlet-flow performance was obtained at 65, 80, 90, 95, 100, 105, and 110 percent of design speed.

The inlet configuration for the distortion tests is shown in Figure 2. The non-rotating nose cone was moved from 30 to 39 inches forward of the rotor leading edge, with screen configurations and supporting struts added to the flowpath 32 inches upstream of the rotor leading edge. Inlet distortion patterns were created by overlaying four screens with various mesh sizes to produce the maximum pressure drop. These screens were mounted on a supporting base screen with a one-inch mesh (Figure 3). Baseline performance tests with the screen were conducted at 80, 90, and 95 percent of design speed to document any changes in performance. Flow was distorted radially by using a screen which covered the outer 2/5 of the inlet annulus. Flow was distorted circumferentially with a 90-degree screen, which was rotated to six positions so that twelve circumferential readings could be made with the dual instrumentation probes, which were mounted 180 degrees apart. Distortion tests were conducted at 80, 90, and 95 percent of design speed. Stress surveys were also conducted with the distortion screens mounted.

Noise tests were conducted at 65, 80, 90, 100, 105, and 110 percent of design speed. A short bullet-shaped nose cone was used, extending nine inches forward of the rotor leading edge. All radially-mounted instrumentation was removed, except for the stator leading-edge impact tubes and the five-element pressure rake at the rig exit. Struts between the plenum and rotor were also removed before these tests were run.

#### E. Aerodynamic Performance Calculation Procedure

All performance data were automatically recorded on computer cards in millivolts. These data were converted to engineering units, and thermocouple-wire corrections were made. Aerodynamic corrections and averaging techniques were made for the various instrumentaion as follows:

1. Total pressure probes located in supersonic flow were corrected for shock losses. Circumferential distributions of total pressure from the two wake rakes were mass-flow-averaged at each radial position, using a constant circumferential static pressure which was determined by linear interpolation between wall static pressures. A peak value from the circumferential distribution of each wake rake was chosen to represent free stream, or rotor exit, pressure. A wake-blockage factor, defined in Appendix 1, was calculated at each radial position for use in the flow field calculation program to improve the accuracy of the static pressure and velocity cal-

culations. Free-stream pressures, circumferentially mass-flow-averaged pressures, and wake blockage factors from both rakes were each arithmetically averaged at each radial location. These radial distributions were the input to a streamline analysis program which radially mass-flow-averaged pressures and temperatures for over-all perfor-mance. Radial distributions of static pressure used for the radial mass-flow-averaging were calculated by the streamline analysis program.

- 2. Mach numbers from radially-traversed disk probes were determined from the ratio of measured-static to measured-total pressure. Corrections to total pressure and yaw angle were made using recovery calibrations for the individual probes. Static pressure was calculated using the measured total pressure and Mach number. The output for each probe consisted of measured total-pressure and calculated static-pressure ratios, Mach number, and air angle at nine radial locations. An arithmetic average of the two stator-exit probe-angle readings for each radial position was used in the flow-field calculation.
- 3. Temperature probes were corrected for Mach number recovery, including the pressure-level effect. Six radial rakes were approximately equally-spaced about the annulus at the stator exit, and located at different circumferential positions relative to a stator gap. A circumferential mass-flow average was calculated at each radial position and used in the flow-field calculation. Circumferential wake-rake total-pressure distributions were used for the circumferential mass-flow averaging of the stator exit temperatures.

Over-all performance calculations were based upon the inlet plenum as a reference for uniform inlet flow and upon rotor inlet (Station 4, Figure 9) measured mass-flow average pressure for radial and circumferential inlet distortion flow tests. Over-all performance calculations computed by the streamline-analysis program (Appendices 2, 3, and 4) were obtained by translating rotor-inlet measured pressures along streamlines and by mass-flow-averaging at the rotor leading edge (Station 5, Figure 9).

All averaging techniques were the same for both uniform inlet flow and for radial distortion. Different averaging techniques were applied to temperatures and pressures for evaluating over all performance for the circumferential-distortion tests. Each of the six individual temperature rakes was radially mass-averaged for each screen position, and the 36 resulting values (six probes from each of six screen positions) were arithmetically averaged. Total pressures from each wake rake (14 elements mass-averaged) were radially mass-averaged for all six screen positions, and the twelve resulting values were circumferentially mass-averaged. Over-all stage efficiency for circumferential inlet-distortion-flow tests was calculated from the resulting values.

Velocity vectors were calculated from measured disk probe data at the instrumentation plane upstream of the rotor (Station 4, Figure 9) and downstream of the stator (Station 13). Results of this calculation were used to analyze the effects of circumferential inlet distortion. All velocities were corrected to standard-day inlet temperature so that direct comparison of all performance data may be made. Vector calculations were made at each of the nine radial positions where disk traverse data was taken.

Blade element performance for uniform inlet, distortion baseline, and inlet radial distortion

tests was calculated by a streamline-analysis computer program. All parameters were corrected to standard-day conditions. Measurements used for the solution of the flow-field program were:

- 1. Compressor Inlet (Station 0, Figure 9): Corrected weight flow and corrected rotor speed.
- 2. Rotor Inlet (Station 4) Constant radial distribution of standard-day temperature. Axial inlet absolute air angle. Constant radial distribution of standard-day total pressure for uniform inlet tests. For radial distortion and baseline tests, radial distributions of total pressure from the two rotor-inlet rakes. The radial massaveraged pressure was adjusted to standard-day conditions.
- 3. Stator Inlet (Station 11): Radial distribution of total-pressure free-stream values from the wake rakes behind the stator, ratioed to the rotor inlet.
- 4. Stator Exit (Station 13): Radial distribution of total temperature from the circumferentially mass-averaged temperature rakes, ratioed to the rotor inlet (Calculation Procedure, Item E-3). Radial distribution of the total pressure from both wake rakes, ratioed to the rotor inlet. Radial distribution of wake blockage factors from both wake rakes. Radial distribution of absolute air angle from two disk probes.

All static-pressure distributions and air angles behind the rotor were calculated by the program from considerations of mass-flow continuity, radial equilibrium, and energy equations, assuming axisymmetric flow. Curvature, enthalpy, and entropy gradient terms were used in the equilibrium calculations. Blade-element performance parameters at the blade edges were calculated by translating the measured data from the instrument plane along streamlines. Blade-element performance parameters were calculated at nine radial locations defined by streamlines passing through the rotor trailing edge at 5, 10, 15, 30, 50, 70, 85, 90, and 95 percent of passage height. Pertinent performance parameters are defined in Appendix 1.

#### F. Acoustic Data Reduction Procedure

A block diagram of the acoustic data reduction system is shown in Figure 16. Tape-recorded data were processed through a wave analyzer having a 50 Hz bandwidth filter. The output of the analyzer was then recorded on a graphic-level recorder so that a trace of sound pressure level as a function of frequency could be obtained. From these traces, broadband noise and supersonic-tip-speed combination tone (multiple pure tones or buzz-saw) noise, hereafter referred to as supersonic fan noise, were evaluated. Blade-passing-frequency data were time-averaged for 30 seconds at each compressor operating point. This was accomplished by tuning the wave analyzer to the blade-passing frequency (BPF) and obtaining a trace on the recorder of BPF sound-pressure-level vs. time. The average level obtained from this trace was termed "the time-averaged BPF sound-pressure level."

Supersonic fan noise (combination tone noise) was computed by summing the sound pressure levels of discrete frequency tones below blade-passage frequency which existed at integral

multiples of rotor speed. The discrete frequency levels were obtained directly from the 50 Hz bandwidth spectrum traces from each of the microphones and were logarithmically averaged.

The average acoustic power level for each one-third-octave band was calculated for the broadband noise from the following equation, which is derived in Appendix 7.

$$PWL = SPL + 10 \log v - 10 \log H - 19.4 dB$$

In order to determine the average value of broadband SPL to use in this equation, each spectrum trace was marked in preferred one-third-octave bands. The average pressure reading within each band was determined after deleting all discrete frequency tones. A correction was then applied to the averaged sound pressure level to account for the fact that a 50 Hz bandwidth filter was used rather than a one-third-octave filter. The correction is as follows:

$$Corr = 10 \log \frac{f_z}{50}$$

The values of corrected broadband SPL from the microphones were then logarithmically-averaged within each one-third-octave band for each operating point. These average broadband sound pressure levels and the reverberation time (H) obtained from Figure 13 were used to calculate the radiated sound power level from the acoustic power level equation.

The equivalent chamber volume (v) in the acoustic power-level equation is particularly difficult to determine for an open-end plenum such as that used for these tests. The calculated power level, however, is relatively insensitive to chamber volume (e.g., doubling the volume affects the power level only 3 dB). Data trends are unaffected because the volume is constant. A good approximation of the volume was considered to be 442 ft<sup>3</sup>.

#### IV. RESULTS AND DISCUSSION

Performance results are discussed under the headings of shakedown test, uniform inlet flow, inlet distortion flow, and noise.

Over-all performance of the rotor and stage are presented in terms of pressure ratio and efficiency versus corrected weight flow  $(W \sqrt{\theta}/\delta)$ , with corrected speed  $(N/\sqrt{\theta})$  as a parameter. Rotor and stator blade-element performance plots, including loss coefficient, diffusion factor, and deviation are presented as functions of incidence. Tabulations of Machnumber ranges for each speed line were included on the blade-element plots for convenience.

Over-all performance and blade-element data are presented for uniform inlet flow, support-screen baseline, and inlet radial-distortion tests. Over-all performance is presented for inlet circumferential distortion tests. Performance comparisons are made showing the effectiveness of stator-hub-slit suction and stator-hub-slit recirculation. Results of rotating stall are included for the uniform-inlet-flow tests. Baseline distortion data are presented to establish any performance changes resulting from the addition of the support screen for inlet distortion tests. Radial and circumferential distributions of pressure, velocity, and air angle are included to describe the effect of inlet distortions on the flow conditions at the rotor inlet and stator discharge. Noise data are presented as sound spectrum traces of pressure level for 50 Hz bandwidths. Supersonic fan noise (combination tones) and blade-passing frequency tones are presented versus rotor-tip relative Mach number. Sound power level is presented for broadband noise, using one-third-octave-band analysis.

All data, unless otherwise noted, were obtained using stator-hub-slit suction.

#### A. Shakedown Tests

Shakedown tests were conducted with uniform inlet flow to determine aerodynamic and mechanical limitations of the rig, such as stress boundaries, rotating stall, and stall flow limits. The shakedown tests were also used to evaluate the effects of stator-hub-slit suction.

Measured rotor-blade steady-state stresses due to centrifugal and untwist loads were lower than the predicted level of 62,000 psi (Reference 1). The lower stress was apparently due to the fact that the blade platform could deform elastically. Rotor-blade vibratory stresses were also lower than estimated. Stator continuous vibratory stresses increased with rotor speed, exceeding the allowable 10,000 psi at 115 percent of design speed and limiting the range of performance operation to 110 percent of design speed. Stator continuous vibratory stresses at 115 percent of design speed were highest at wide-open throttle, moderate from part-throttle to near-stall, and exceeded 20,000 psi transient while operating at the stall limit. Low-speed limitations were dictated by drive-engine power and speed-control problems, which prevented running at 50 percent of design speed. These limitations resulted in the selection of 65, 80, 90, 95, 100, 105, and 110 percent of design speed for performance testing.

The effects of stator-hub-slit suction and recirculation (slits open but no applied suction) may be seen in Figure 17, where stator loss coefficient and diffusion factor are plotted versus

incidence angle. At 5 to 30 percent span from the hub, slit suction reduces stator losses. Recirculation alone results in a performance similar to that when the slits are closed, except at 5 percent span from the hub, where stator losses appear to be slightly higher. The effect of suction diminishes toward mid-span, but the over-all effect represents an efficiency gain of 1.5 percent in stage efficiency at design speed.

A total slit suction flow of approximately 0.4 lb/sec (corrected to stage inlet) was used over the entire range of operation. At design speed and flow, 0.2 percent of the total compressor flow was removed by suction. Figure 18 illustrates the effect of slit suction on the stator hub total pressure wake at design speed: The pressure wake is both narrower and shallower with slit suction.

To determine rotating stall, pressure fluctuations versus time were recorded by three pressure transducers at 25, 50, and 85 percent of blade height from the hub and at circumferential positions of 20, 50, and 110 degrees (Figure 10). Traces of pressure versus time for 70, 90, and 100 percent of design speed and near-stall throttle settings are shown in Figure 19. Rotating-stall pressure fluctuations were strongest at 85 percent, were still well-defined at 50 percent, and were difficult to discern at 25 percent of blade height. At all three speeds, one stall cell which rotated at approximately one-half rotor speed was the most probable stall pattern, based upon the phase difference between stall patterns of the three pressure probes. Review of rotor blade strain gauge response, in conjunction with the three pressure traces, might also indicate either two or three cells rotating at one-quarter rotor speed.

#### B. Uniform Inlet Flow Performance

Stage and rotor-only over-all performance are presented in Figures 20 and 21. Tabulated results are presented in Appendix 2. The stall line was established by extrapolating the characteristic speed lines to the measured stall airflows, shown as slashed symbols. Stall operation above 100 percent of design speed was avoided because of high stator stresses. The 172.5 lb/sec stall flow obtained at 100 percent of design speed was recorded during rotating-stall tests and could not be repeated one week later during performance testing, when a minimum flow of 180 lb/sec occurred three times in succession.

A maximum stage efficiency of 88.1 percent (Figure 20) at design equivalent speed was obtained near stall at 182.4 lb/sec airflow and 1.484 pressure ratio. At design speed and design airflow (185 lb/sec), stage pressure ratio and efficiency were 1.458 and 84.8 percent respectively, compared to the design values of 1.50 and 87.3 percent. The apparent lack of stall margin is a problem which must be solved if highly-loaded low speed fans are to find useful application.

Peak rotor efficiency (Figure 21) remains essentially constant at 93.5 percent up through design speed. At speeds above design, peak efficiency may not have been attained because of the limited throttling permitted by stress conditions. Rotor pressure ratio appears lower than predicted as a result of under-estimated rotor tip deviations (i.e., inadequate rotor work). Rotor spanwise efficiency for design speed is shown in Figure 22. Severe blade endwall losses were encountered at both hub and tip.

Blade-element performance of the rotor and stator at nine radial locations is tabulated in Appendix 2. Figures 23 and 24 present some of these data in plots of diffusion factor, deviation, and total-pressure-loss coefficients versus incidence for the rotor and stator. Data were calculated at axial stations slanted for the rotor (Figure 9) corresponding to the leading and trailing edges of the blade. Rotor and stator loss coefficients are plotted versus percent span for near-stall and wide-open throttle conditions at design speed (Figures 25 and 26). Rotor mid-span losses (Figure 25) at near-stall throttle are markedly lower than predicted design losses. Rotor-hub losses, however, are much greater than predicted, (i.e., 0.21 compared to 0.065 at 5 percent from the hub). Stator losses (Figure 26) are highest at the hub as predicted. Figure 27 shows the stator-wake distribution of total pressure and temperature at the stator discharge as measured by the wake rakes and temperature probes. The severity of the stator profile losses may be compared between outer case, mid-span, and hub (90, 50, and 10 percent of span respectively).

#### C. Inlet Distortion Performance

Over-all baseline performance of the stage and the rotor only (Figures 28 and 29), with the one-inch mesh support screen in place, appears somewhat lower than in tests without the support screen. Compressor inlet conditions are defined by the mass-average total pressure from the fixed radial rakes upstream of the rotor. Rotor and stator blade-element performance with the support screen in place indicate an increase in stator and rotor losses at the hub (Figures 30 and 31). Dirt deposits in the stator hub region were found at teardown, which might explain the increased losses. Tabulations of the blade-element data for rotor and stator with the support screen attached are presented in Appendix 3.

Distortion data were obtained for three throttle settings at each of three speeds: 80, 90, and 95 percent of design speed. With radial distortion, first-bending flutter created high vibration stresses above 95 percent of design speed, which prevented testing at 100 percent of design speed. Such stresses were not present with circumferential distortion. A maximum inlet distortion parameter ( $P_{max}$ - $P_{min}/P_{max}$ ) equal to about 0.12 at 95 percent of design speed was used throughout for both radial and circumferential distortion tests.

Radial distortion was created with a screen located axially as in Figure 2 which covered the outer two-fifths of the compressor inlet annulus. Inlet pressure and velocity-distortion patterns at 95 percent of design speed, as measured by the inlet disk probes, are shown in Figure 32. Overall stage and rotor performance for radial distortion is shown in Figures 33 and 34, wherein the solid curves represent the baseline performance with the support screen in place. At 95 percent of design speed and 168.2 lb/sec airflow, over-all pressure ratio was 1.437 percent compared with 1.430 for the baseline. Over-all efficiency under the same conditions was 84.3 percent, compared with 86 percent for the baseline. Stall at 80 percent of design speed occurred at a flow 15 lb/sec higher than the baseline tests. In general, the tip radial distortion imposed had only a modest effect on stage performance. Figures 35 and 36 illustrate the rotor and stator blade-element performance for radial distortion as plots of diffusion factor, deviation, and loss coefficient versus incidence. Tabulations of blade-element and over-all data are presented in Appendix 4.

Circumferential distortion was imposed on the compressor by placing a 90-degree screen at the inlet annulus. This screen created the rotor-inlet circumferential patterns of total pressure, flow angle, and velocity illustrated in Figure 37 at 95 percent of design speed. The consequent stator discharge patterns are shown in Figure 38. Stator discharge temperature patterns at 10, 50, and 90 percent span are shown in Figure 39. When the disk probes at the stator discharge were traversed to the hub, they were adversely affected by the stator wakes so that disk-probe measurements were not true indications of the distortion effects. For this reason, data at 10 percent from the hub are not presented. Over-all stage performance is presented in Figure 33. Stage pressure ratio and efficiency at 95 percent of design speed and 160 lbs/sec were 1.423 and 84.3 percent, compared with 1.430 and 86 percent for the baseline. Stall at 95 percent of design speed occurred at a flow 11 lb/sec lower than the baseline tests. In general, the circumferential distortion imposed had only modest effects on stage performance. Tables in Appendix 5 contain circumferential distributions of the following parameters:

- 1. Rotor inlet disk probes (Station 4, Figure 9)
  - a) total pressure ratioed to the inlet plenum
  - b) static pressure ratioed to the inlet plenum
  - c) absolute air angle
  - d) velocity, referenced to standard day
- 2. Stator discharge disk probes (Station 13)

same as rotor inlet disk probes

3. Stator discharge temperature rakes (Station 13)

total temperature from two rakes on extensions of mid-channel, ratioed to inlet plenum

Temperature and pressure values presented in the tables of Appendix 5 are ratioed to the inlet plenum. Ratios to rotor inlet total pressure may be determined by applying the pressure recovery of the circumferential screen as given in Figure 40.

Static pressure taps at five axial planes between the distortion screen and the rotor inlet on both the outer case and the inner hub produced circumferential distributions typical of those shown in Figure 41 for 95 percent speed.

#### D. Noise

Inlet noise was measured by eight microphones in the rig inlet plenum chamber. Examples of spectrum traces of noise from each microphone are shown in Figure 42. These data were taken at 100 percent design speed at the near-stall fan operating condition. Comparison of these spectra show similar shapes but differing levels from each microphone of broadband noise and the fundamental and first harmonic of blade-passing-frequency noise. The high amplitude below about 500 Hz is due to the electronic characteristics of the filtering system

and is not representative of compressor-generated noise.

Measurements from microphone number 5 were chosen as typical of the sound-pressure-spectrum characteristics along the wide-open and near-stall operating lines from 65% to 110% design speed (Figure 43). The multiplicity of discrete-frequency tones in the 65% near-stall spectrum are thought to be indicative of an unstable aerodynamic condition such as may occur with rotating stall or flutter. The spikes represent sum and difference frequencies about the blade-passing frequency and its higher harmonics. However, since performance instrumentation did not indicate rotating stall, the exact cause of these tones is not known. Future tests should include transducers, flush-mounted over the blade-tips, to determine the origin of these tones.

During the initial portion of testing, a discrete tone was detected at a fundamental frequency of about 4000 Hz which did not vary linearly with rotor speed. The source of this noise was vortices shed from the slip ring support struts. Figure 44 compares the spectra with and without the presence of these struts. The struts were removed for subsequent noise testing. Problems with inlet instrumentation had been anticipated, and the instrumentation was removed before noise testing began.

Appendix 6 contains broadband sound-pressure level data from six of the eight microphones. Data from two of the microphones were considered unreliable and were not used. The one-third-octave sound pressure levels of the remaining six microphones were averaged and used to calculate the one-third-octave-band sound power levels. The averaged power levels for three one-third-octave bands plotted against blade-tip relative Mach number for the part-throttle fan operating line shown in Figure 45. Figure 46 shows the total power level, which was calculated from the logarithmic sum of all the one-third-octave-band levels for the wide-open, part-throttle, and near-stall operating lines. The broadband noise remained essentially constant with increased blade-tip relative Mach number, whereas other fans tested in the same facility have shown increased broadband noise with increased blade-tip relative Mach number. This flat broadband noise characteristic prompted an investigation of sources other than the fan rig as a possible influence on the measured broadband noise. One such investigation concerned the noise generated by the airflow passing through the facility ducting.

Flow noise generated in a pipe is characterized by an increase in noise level as flow is increased. Because the noise levels measured along a fixed throttle setting did not increase with increased fan speed (Figure 46), it appears unlikely that the noise was generated by ducting airflows. Further evidence against ducting noises is that broadband noise decreased as the fan rig throttle was opened at low speeds. If the duct airflow noise were significant, the measured noise would have increased as the fan rig throttle was opened. At the present, no other influential sources of noise are recognized, and the constant broadband noise appears to be a characteristic of this fan stage.

Time-averaged blade-passing-frequency noise plotted against blade-tip relative Mach number for the part-throttle and wide-open operating lines (Figures 47 and 48) shows a general trend of increasing blade-passing-frequency noise with increasing blade speed. The time-averaged sound-pressure level of each microphone and the calculated logarithmic average of all microphones are plotted to indicate measured variations. Discrete tones measured by individual

microphones within the chamber can differ significantly because of standing-wave patterns, as discussed in the Instrumentation and Calibration section.

A plot of the difference in calculated average sound pressure levels between the blade-passing fundamental and its first harmonic as a function of relative tip Mach number (Figure 49) reveals that the sound pressure level of the first harmonic is of the same order as the fundamental at low speeds, but that it becomes insignificant as the speed is increased.

Fundamental blade-passing-frequency signals were also measured by a one-quarter-inch-diameter dynamic pressure transducer located downstream of the fan stage. Figure 50 shows a plot of time-averaged discrete-frequency levels versus tip relative Mach number for both the wide-open and part-throttle operating lines. Both curves show a trend of increasing blade-passing-frequency signal level with increasing Mach number. From the spectra (Figure 51) for the wide-open and part-throttle operating lines, it is apparent that the ratio of blade-passing-frequency level to background level is sufficient to allow amplitudes to be read at speeds below 100 percent design speed. At 65 percent of design speed, part-throttle, the extra tones are like those seen from the inlet plenum microphones (Figure 43) at this speed near stall.

Supersonic-fan noise (combination tone noise) was calculated by summing the sound-pressure levels of discrete-frequency tones which were below the blade-passing frequency and which existed at integral multiples of shaft rotation speed. One point at 105 percent of design speed, three points at 110 percent, and one each at 115 and 120 percent were the only fan operating points where this type of noise was noted. (The data at 115 and 120 percent of design speed were obtained during shakedown tests only.) Figure 52 shows the supersonic-fan noise level as a function of rotor-tip relative Mach number. The points below Mach 1.0 indicate the broadband noise content below the blade-passing frequency at rotational speeds below that at which supersonic-fan noise is generated. The trend is typical of all fans and full-scale engines which operate in this transonic Mach number range, and it shows the large contribution that supersonic-fan noise makes to radiated inlet noise levels.

#### V. SUMMARY OF RESULTS

Tests of a 31-inch diameter highly-loaded single stage fan with a design tip speed of 1000 feet per second and pressure ratio of 1.5 yielded the following principal results:

#### 1. Over-all Performance

Over-all performance in uniform-inlet-flow tests at 100 percent of design speed demonstrated a stage pressure ratio of 1.458 and an efficiency of 84.8 percent at a design flow of 185 lb/sec, compared with design values of 1.5 and 87.3 respectively. A peak stage efficiency of 88.1 percent at 100 percent of design speed occurred near stall, at a pressure ratio of 1.484. Little stall margin existed at 100 percent of design speed and above.

#### 2. Effect of Slit Suction

Stator-hub-slit suction reduced stator-hub losses, so that over-all efficiency at 100 percent of design speed was improved by 1½ percent. A slit flow of approximately 0.2 percent of total inlet flow was used.

#### 3. Effect Distortion

Imposed inlet distortions, either radial (outer two-fifths of the annulus area) or circumferential (90-degree sector) caused only small decreases in over-all efficiency and pressure ratio from the values for undistorted flow performance. Radial distortion reduced the stall margin at lower speeds.

#### 4. Noise Trends

Upstream broadband noise generated by the stage was relatively constant over the range of speeds and flows tested, whereas other fan stages tested in the same facility have shown increased broadband noise with increased relative tip Mach number.

Sound-pressure levels of blade-passing frequency noise generally increased with increasing rotor-tip Mach numbers. Supersonic-fan noise (combination-tone noise) existed only at 105 percent of design speed and above.

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- 2. ASME Research Committee on Fluid Meters. Fluid Meters -- Their Theory and Application, Fifth Edition. American Society of Mechanical Engineers, New York, N. Y., 1959, p. 47.
- 3. Glawe, George E., Simmons, Frederick S., and Stickney, Truman N. Radiation and Recovery Corrections and Time Constants of Several Chromel-Alumel Thermocouple Probes at High Temperature in High Velocity Gas Streams. NACA Technical Note 3766, October, 1956.

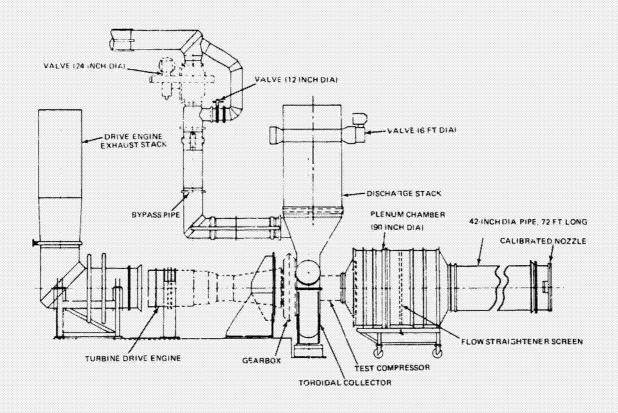


Figure 1 Schematic of Compressor Test Facility

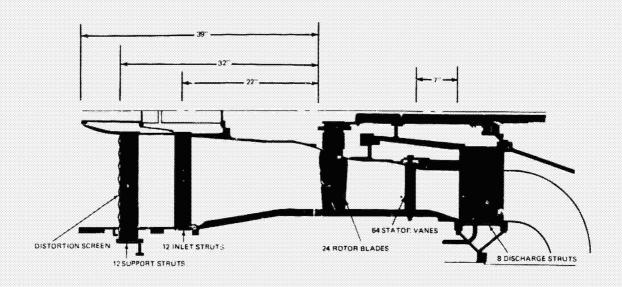


Figure 2 Cross-Section of Test Compressor for Radial Distortion Tests

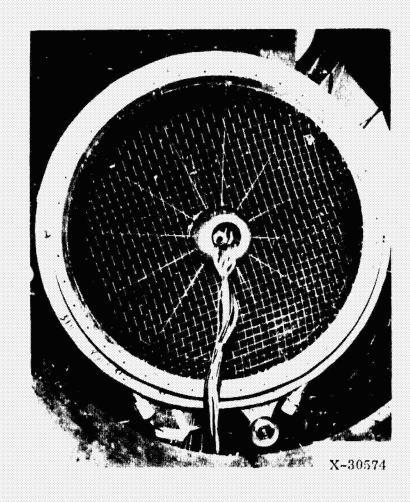
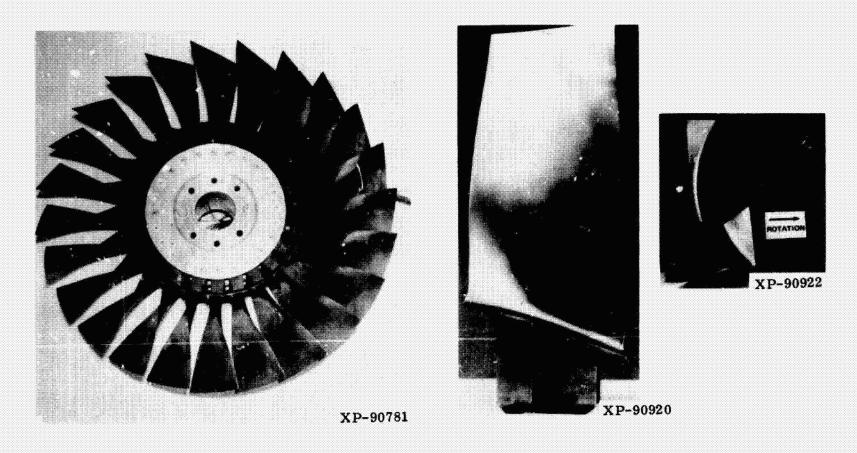




Figure 3 Distortion Support Screen

Figure 4 Test Compressor with Nonrotating Nose Cone



Rear View

Figure 5 Rotor Assembly and Rotor Blade



XP-90929

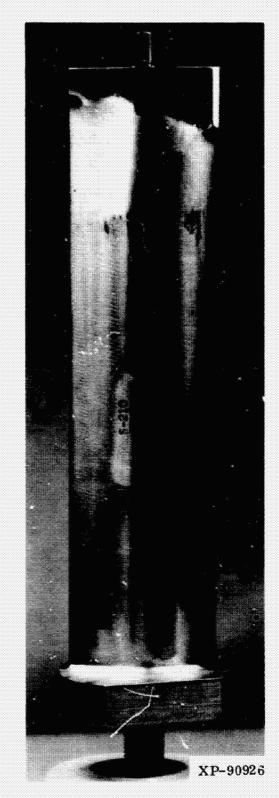
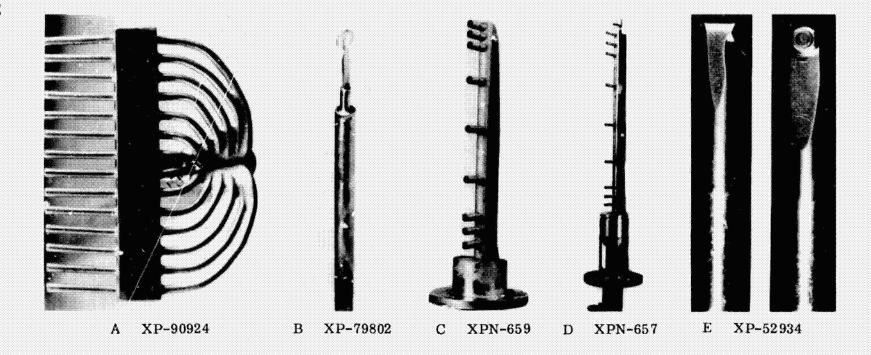


Figure 6 MCA Stator Blade



Figure 7 Stator Hub Bleed Slits



- A. Traversable total pressure wake rake
- B. Traversable disk probe
- C. Temperature rake
- D. Shielded total pressure rake
- E. Quartz-crystal pressure probe

Figure 8 Compressor Instrumentation

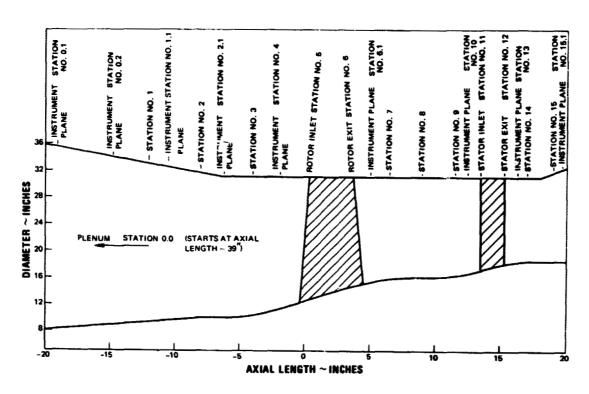


Figure 9 Axial Locations of Instrumentation

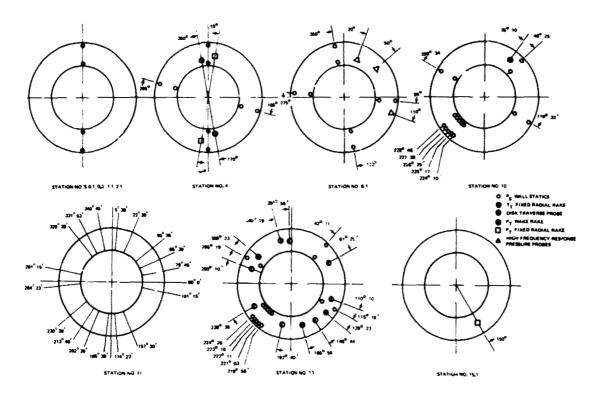


Figure 10 Circumferential Locations of Instrumentation, Looking Downstream, Rotor Rotation Counterclockwise

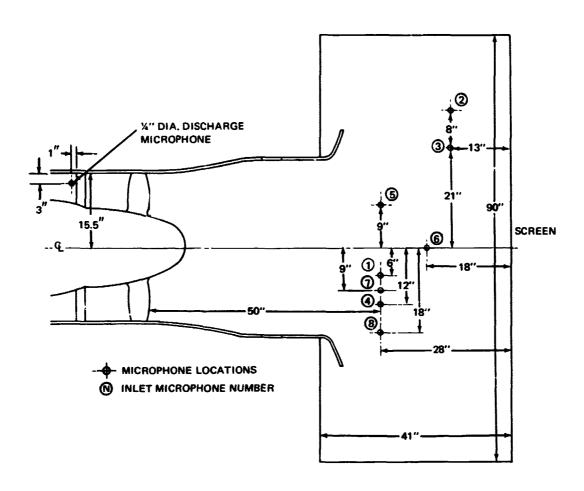


Figure 11 Microphone Locations

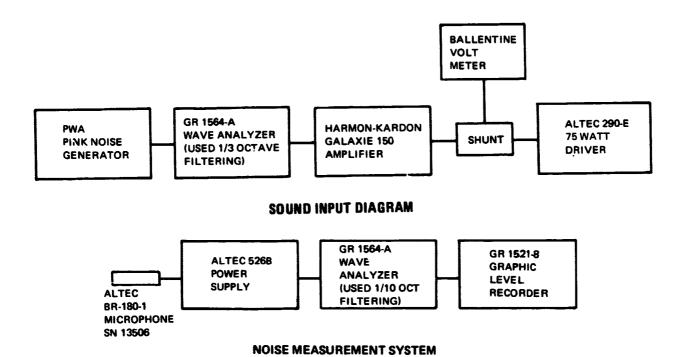


Figure 12 Acoustic Data-Recording System for Evaluating Plenum Reverberation Characteristics

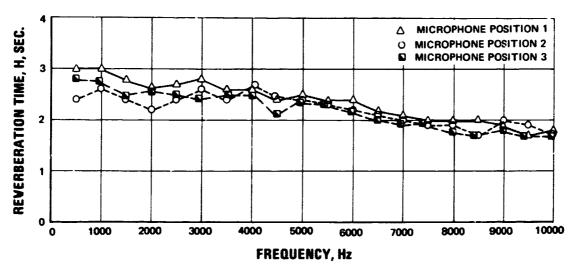


Figure 13 Reverberation Time vs. Frequency for the Inlet Plenum

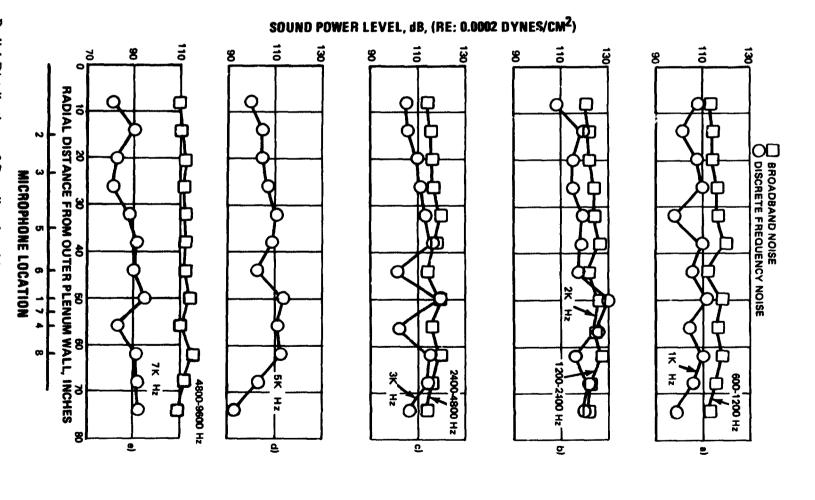


Figure 14 Radial Distributions of Broadband and Discrete Noise for Plenum Chamber

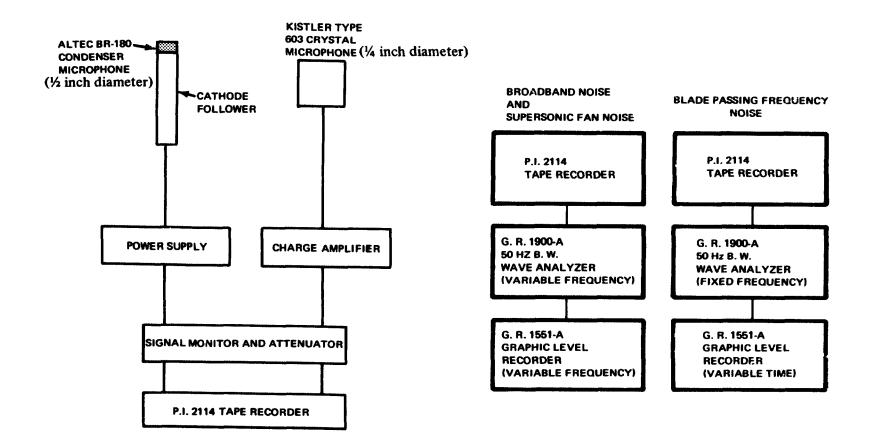


Figure 15 Acoustic Recording System for Fan Noise Tests

Figure 16 Acoustic Data-Reduction System

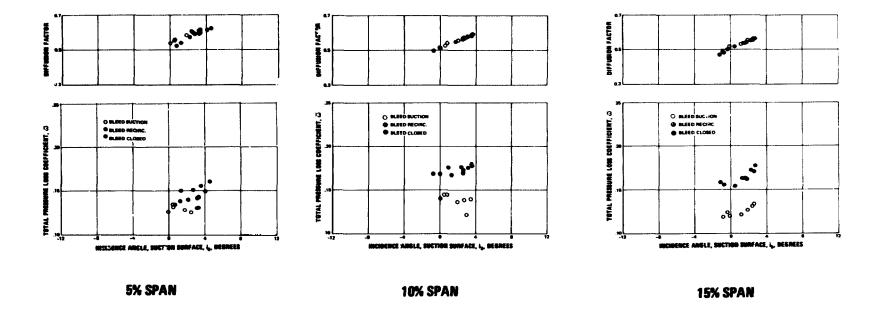


Figure 17 Effects of Stator-Hub-Slit Suction and Recirculation

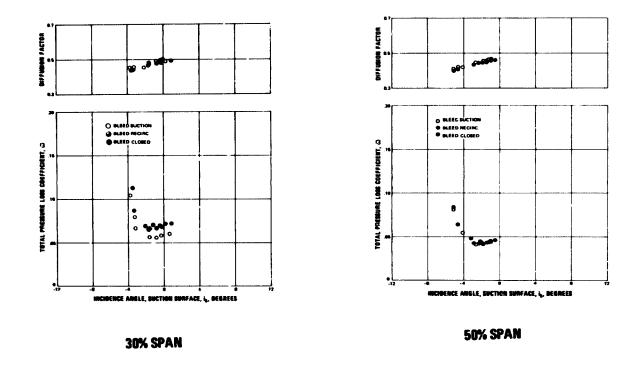


Figure 17 Effects of Stator-Hub-Slit Suction and Recirculation

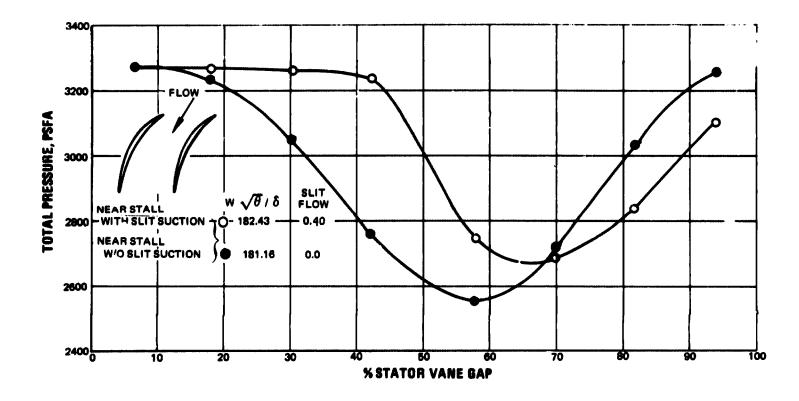


Figure 18 Pressure Distributions vs Percent Vane Gap With and Without Stator Hub Slit Suction, 100% Design Speed, 10% Span From Hub

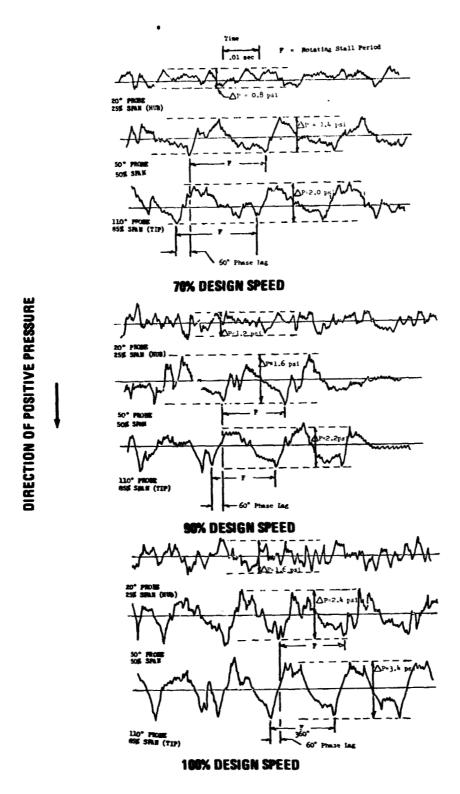


Figure 19 Quartz-Crystal Dynamic Pressure Traces for Evaluating Rotating Stall

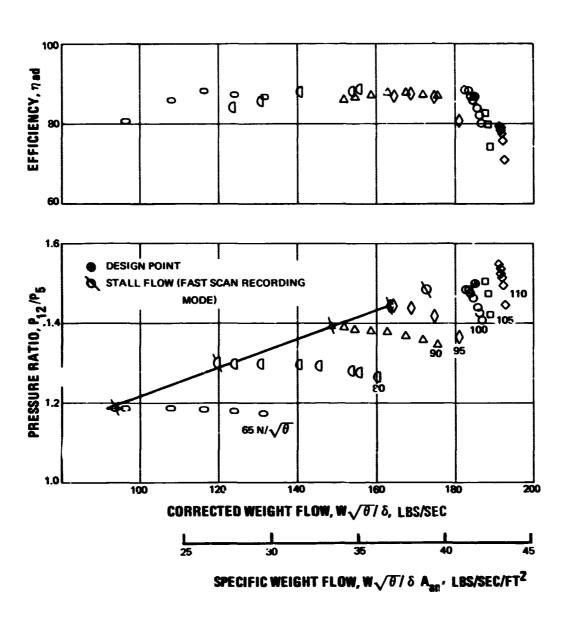


Figure 20 Over-All Stage Performance, Uniform Inlet Flow

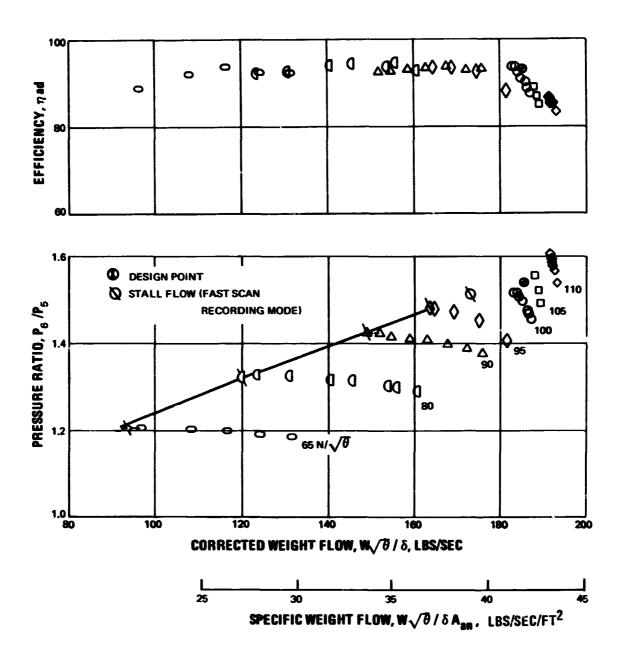


Figure 21 Over-All Rotor Performance, Uniform Inlet Flow

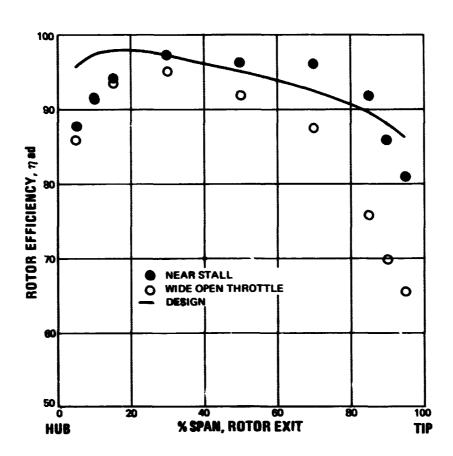


Figure 22 Rotor Efficiency vs. Percent Span, 100% Design Speed

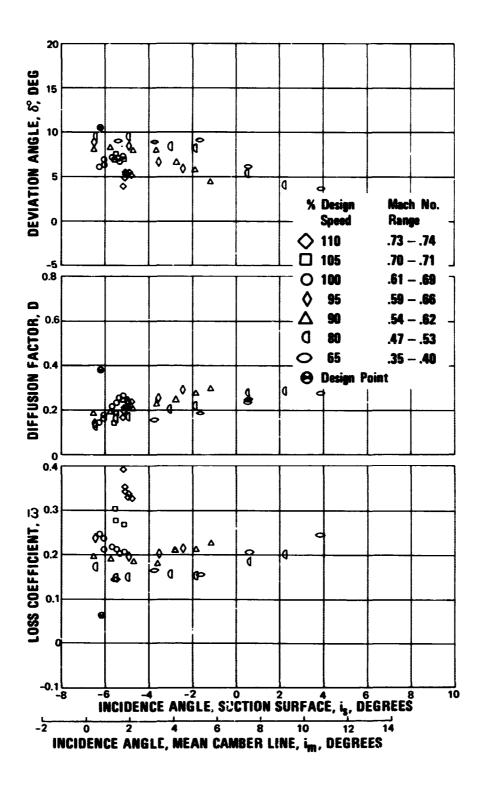


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 5% Span

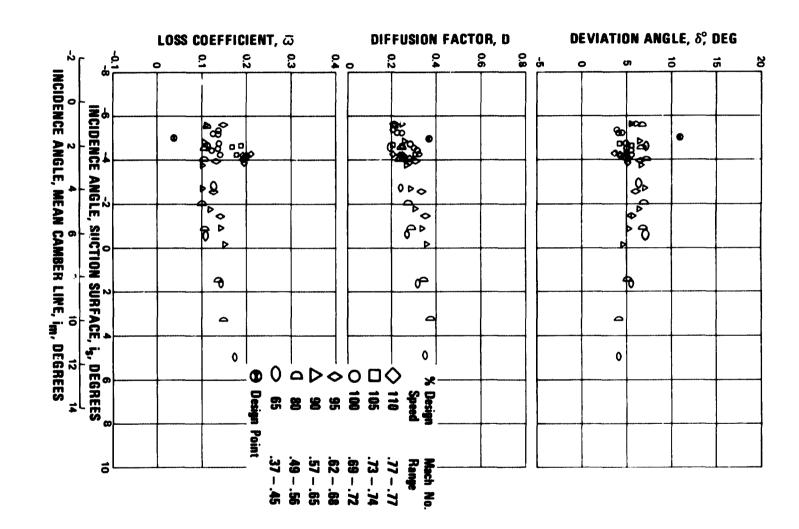
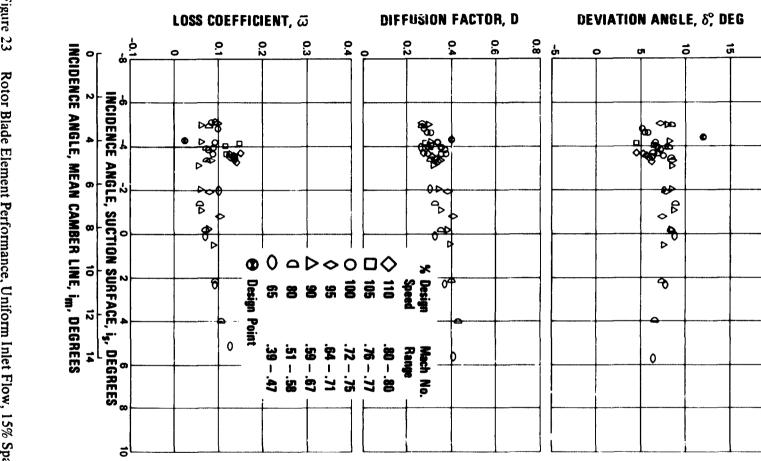


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 10% Span



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Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 15% Span

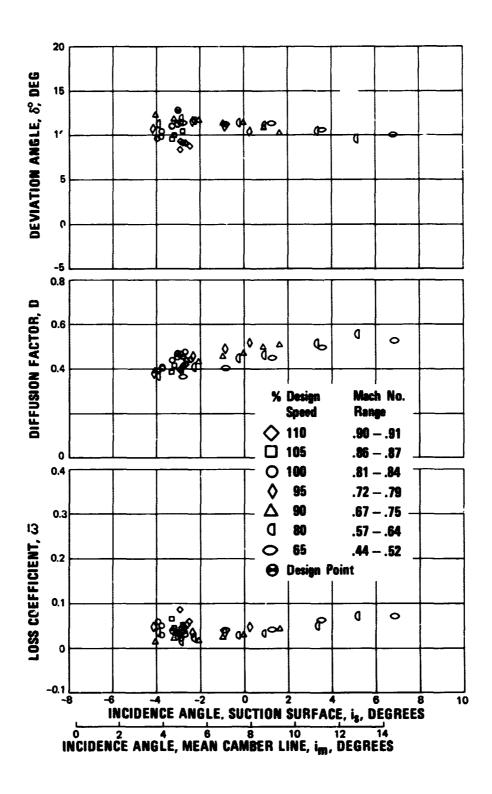


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 30% Span

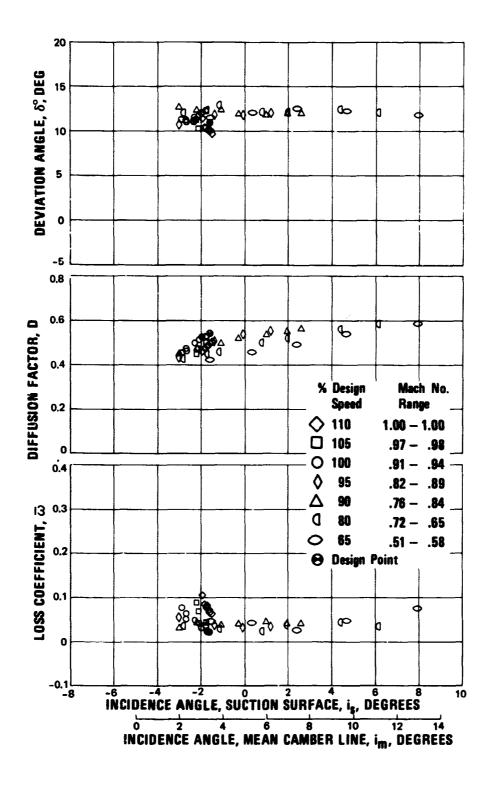


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 50% Span

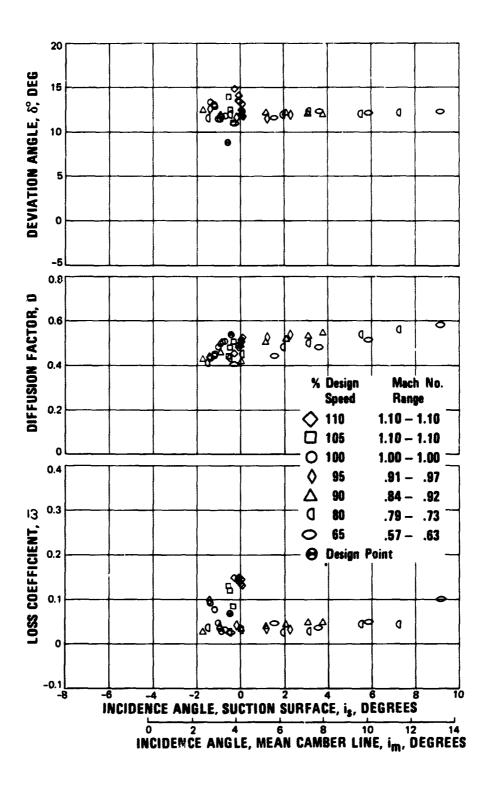


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 70% Span

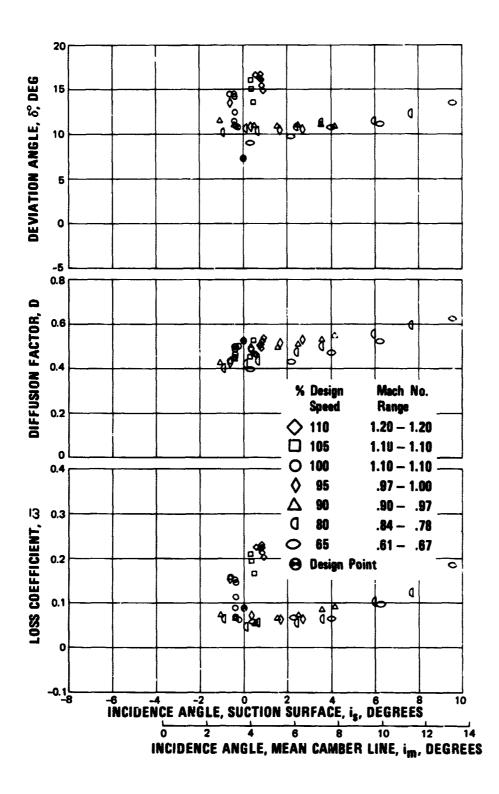


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 85% Span

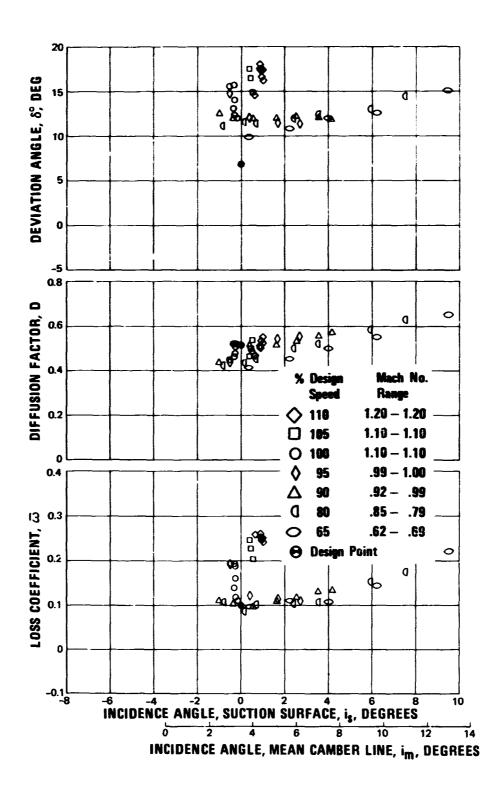


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 90% Span

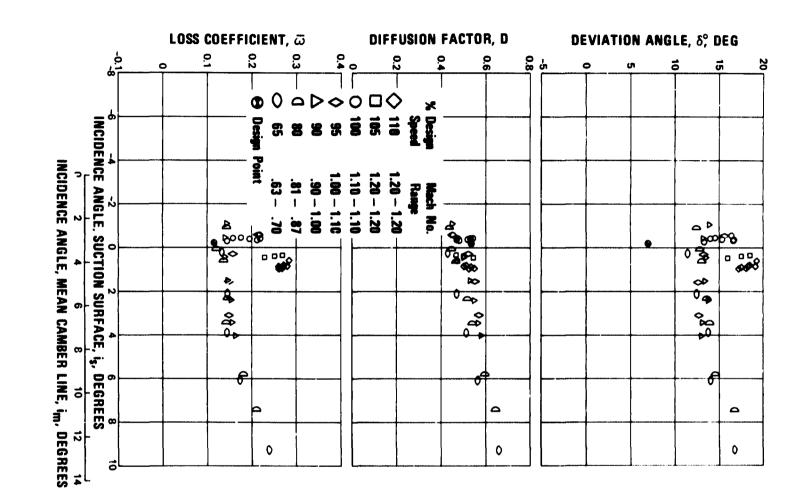


Figure 23 Rotor Blade Element Performance, Uniform Inlet Flow, 95% Span

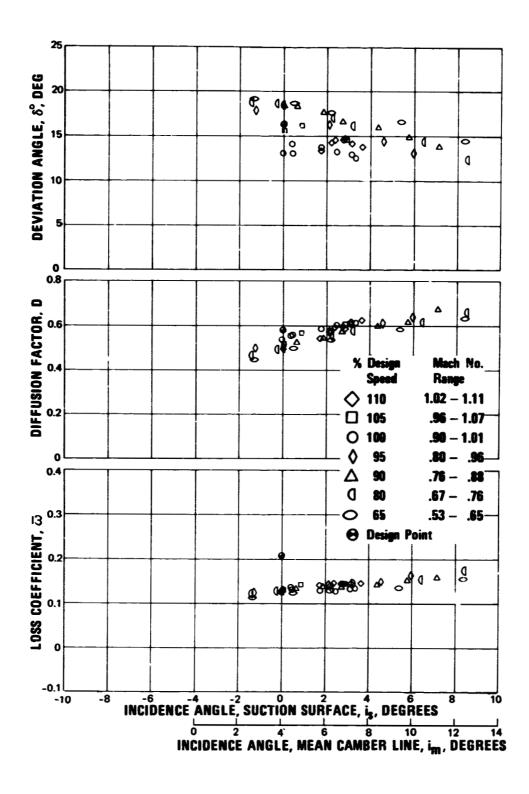


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 5% Span

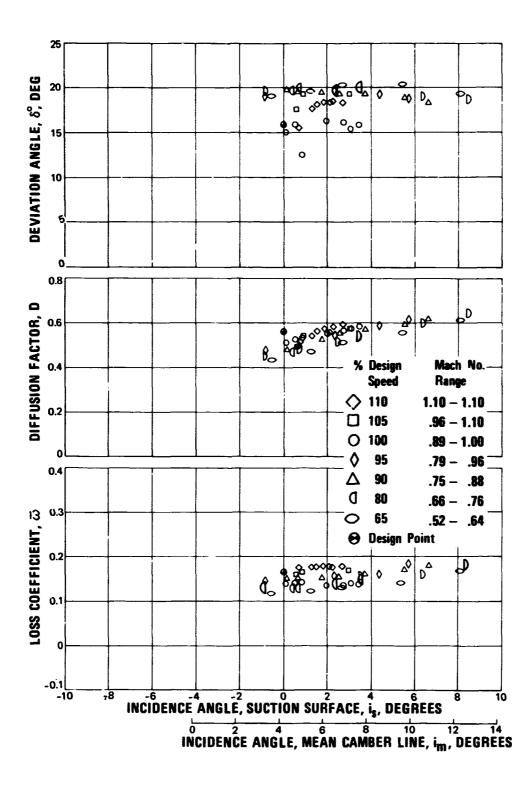


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 10% Span

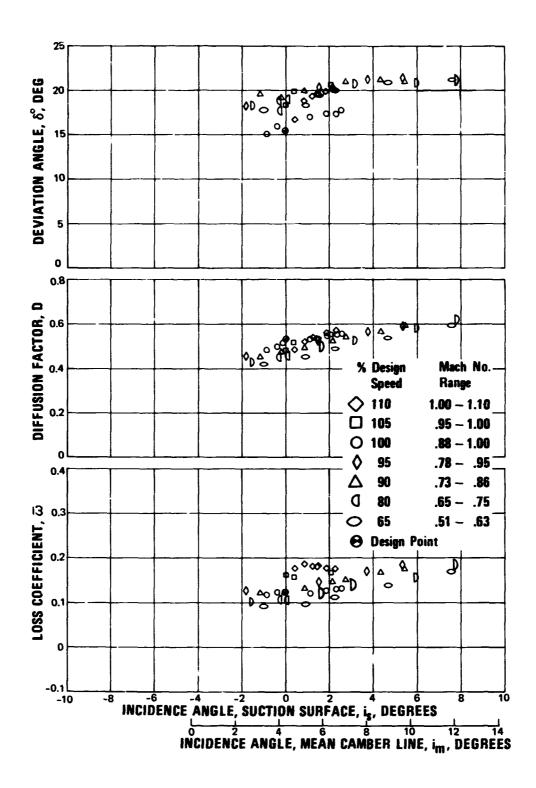


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 15% Span

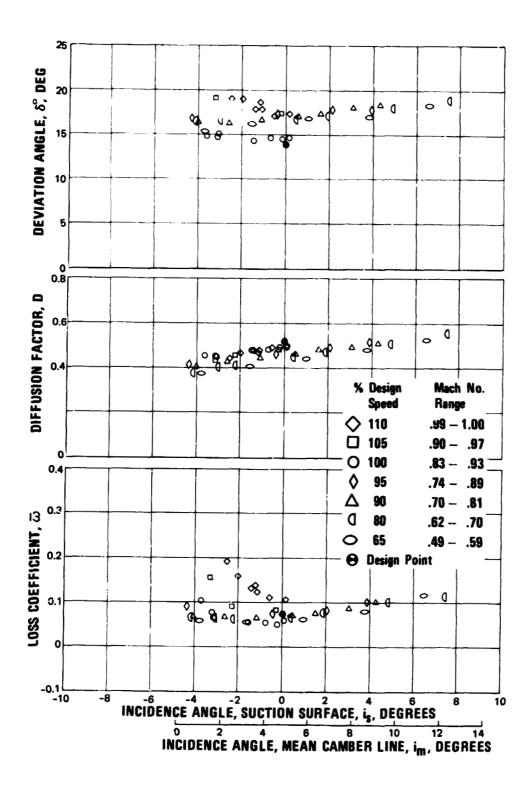


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 30% Span

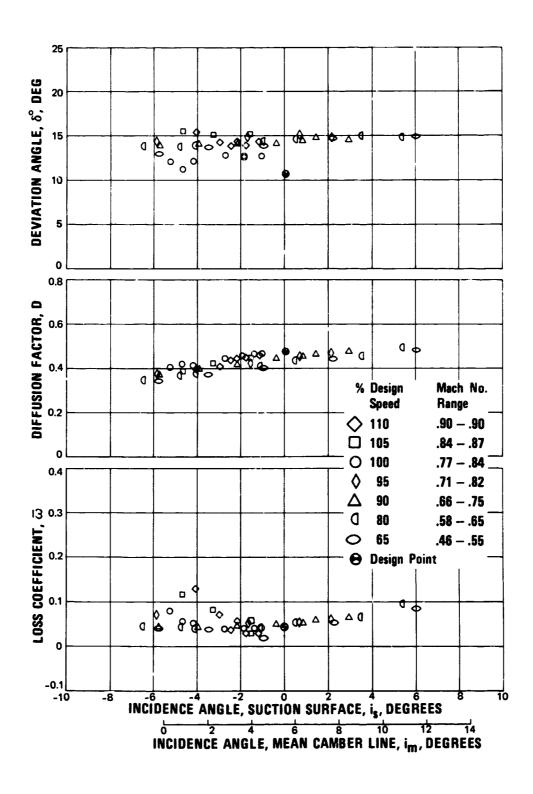


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 50% Span

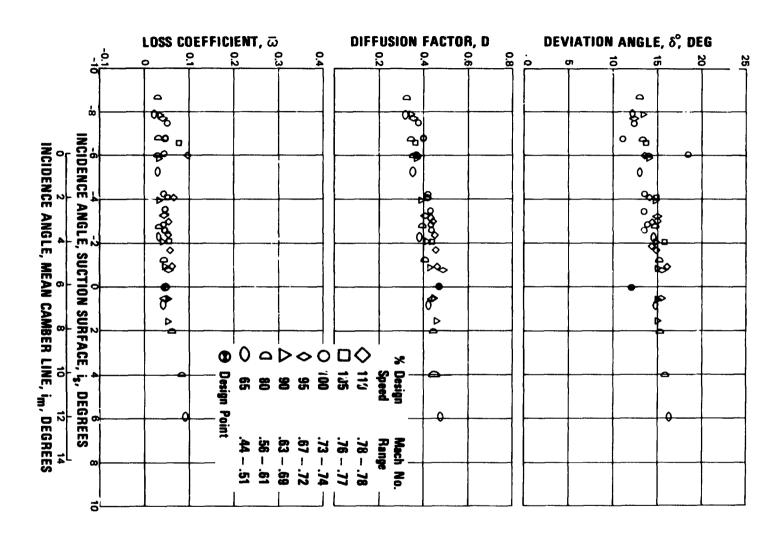


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 70% Span

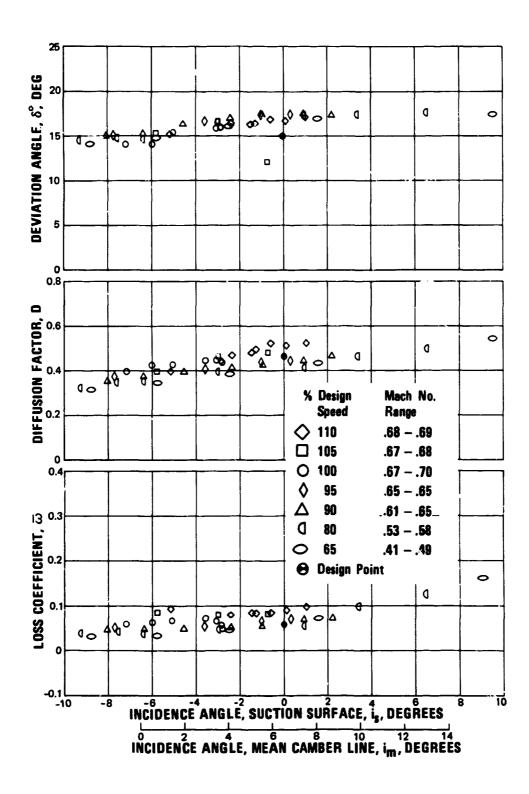


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 85% Span

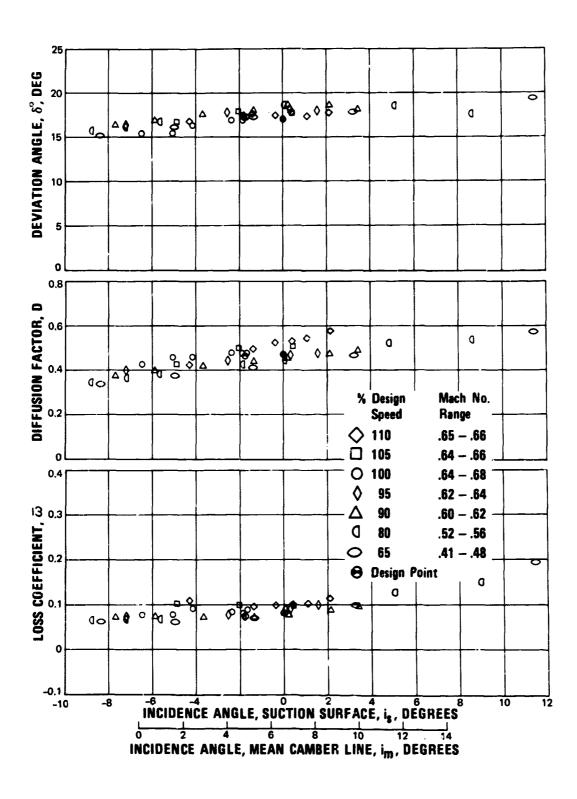


Figure 24 Stator Blade Element Performance, Uniform Inlet Flow, 90% Span

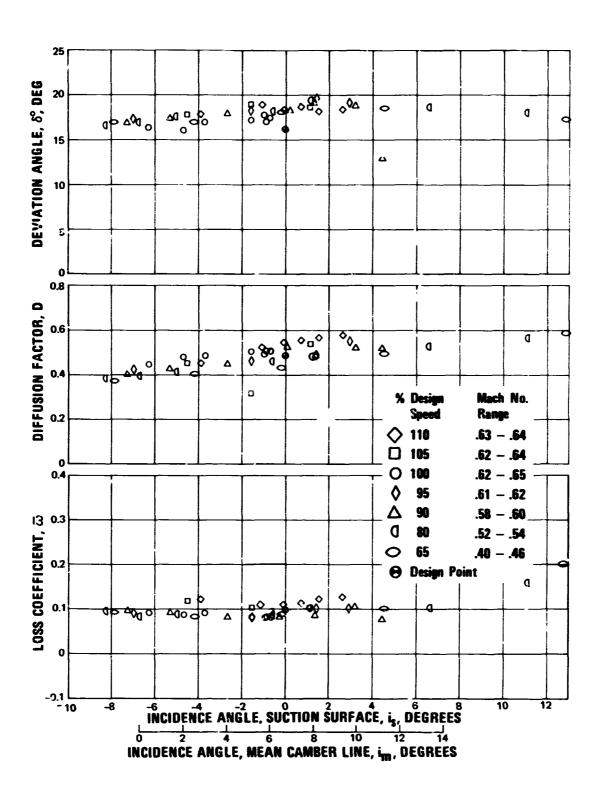


Figure 24 Stator Blade Element Pertormance, Uniform Inlet Flow, 95% Span

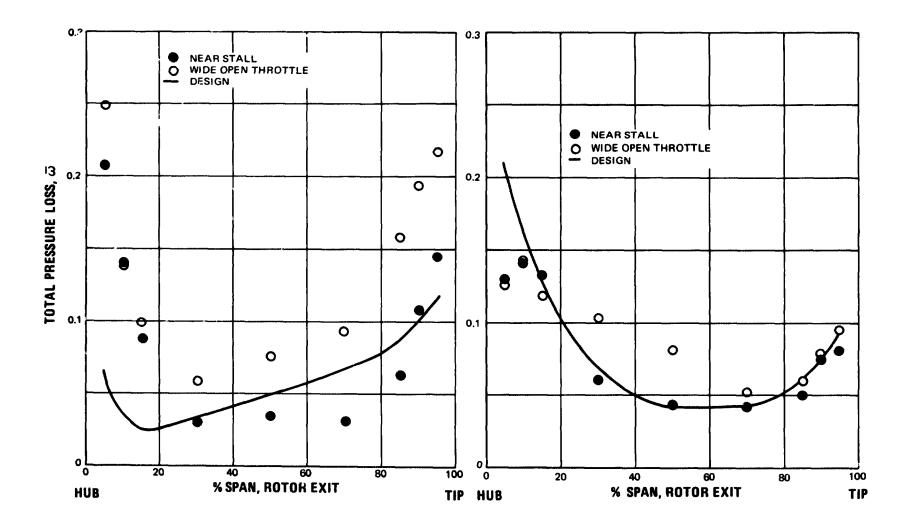


Figure 25 Rotor Total Pressure Loss Coefficient vs. Percent Span, 100% Design Speed

Figure 26 Stator Total Pressure Loss Coefficient vs. Percent Span, 100% Design Speed

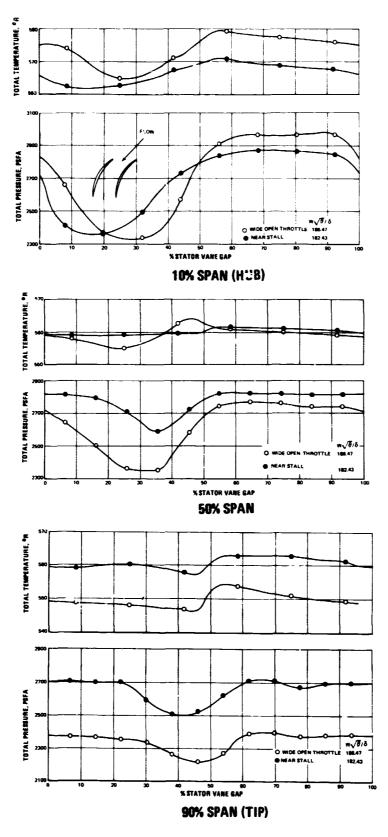


Figure 27 Circumferential Pressure and Temperature Distributions vs. Percent Vane Gap, 100% Design Speed

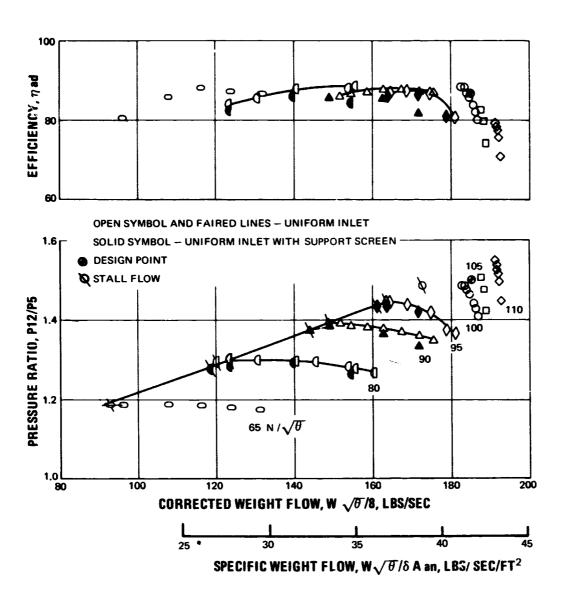


Figure 28 Over-All Stage Performance with Support Screen, Uniform Inlet Flow

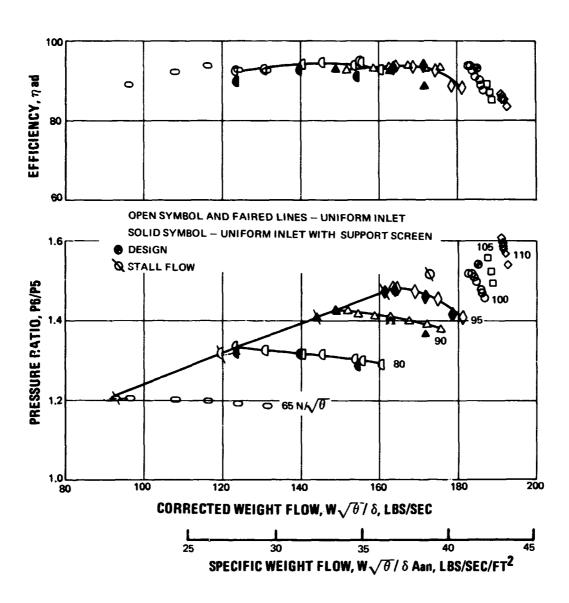


Figure 29 Over-All Rotor Performance With Support Screen, Uniform Inlet Flow

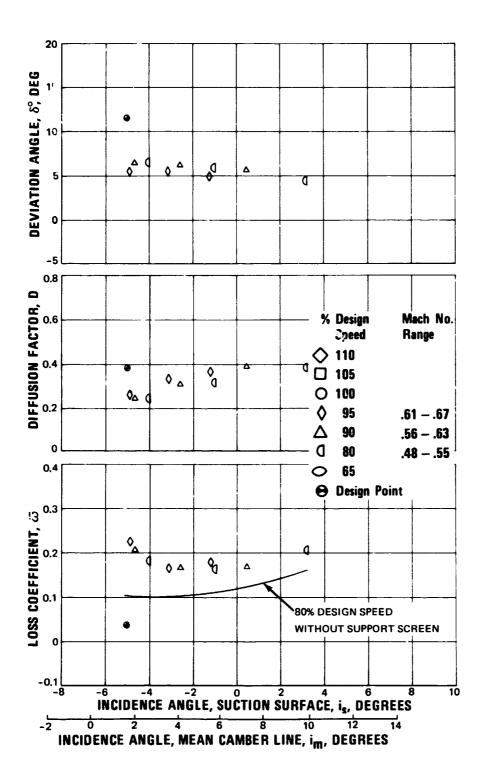


Figure 30 Rotor Blade Element Performance with Baseline Screen, 10% Span

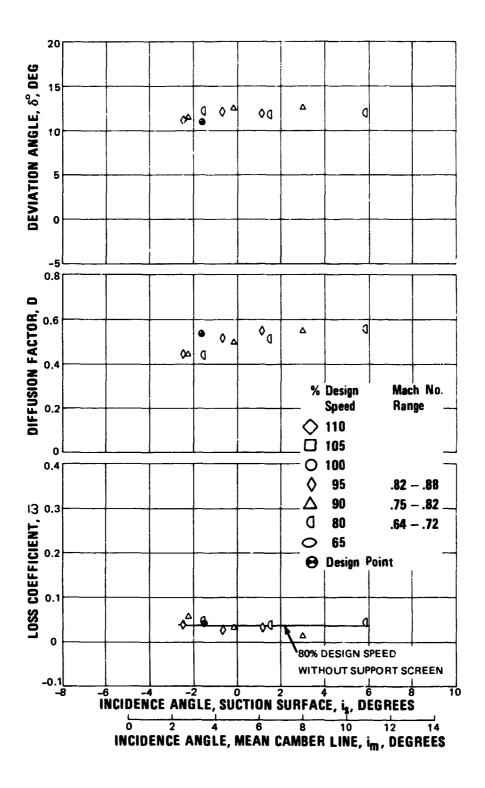


Figure 30 Rotor Blade Element Performance with Baseline Screen, 50% Span

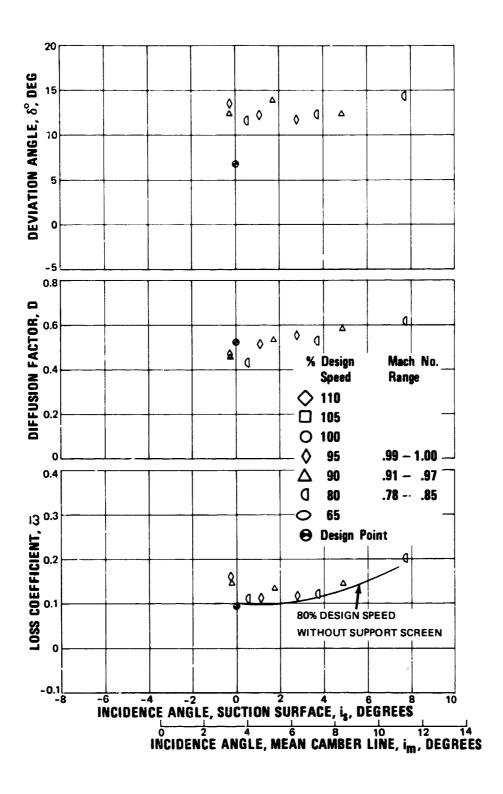


Figure 30 Rotor Blade Element Performance with Baseline Screen, 90% Span

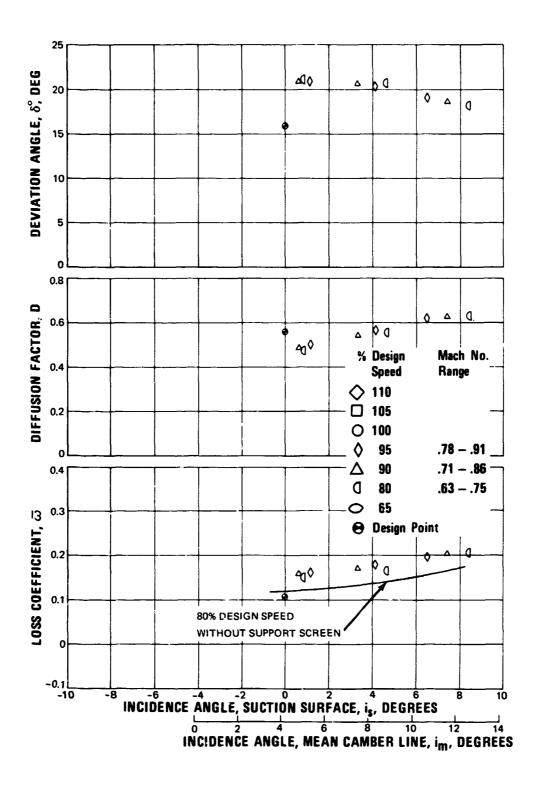


Figure 31 Stator Blade Element Performance with Baseline Screen, 10% Span

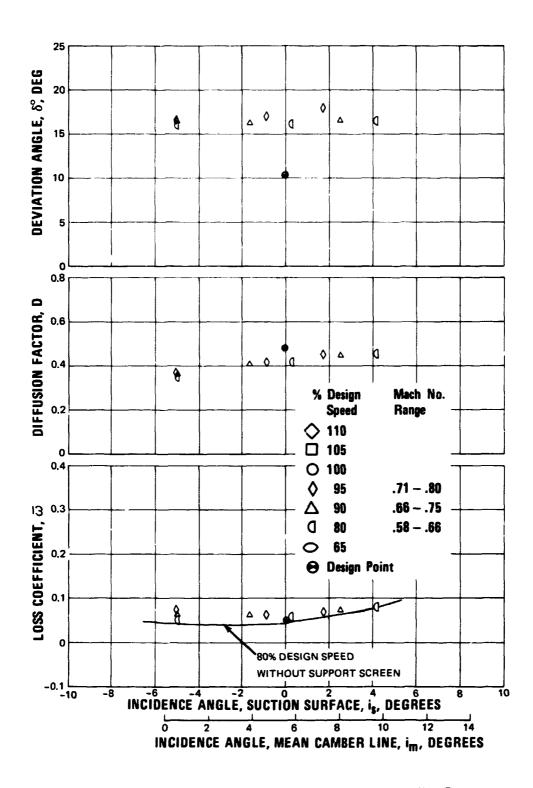


Figure 31 Stator Blade Element Performance with Baseline Screen, 50% Span

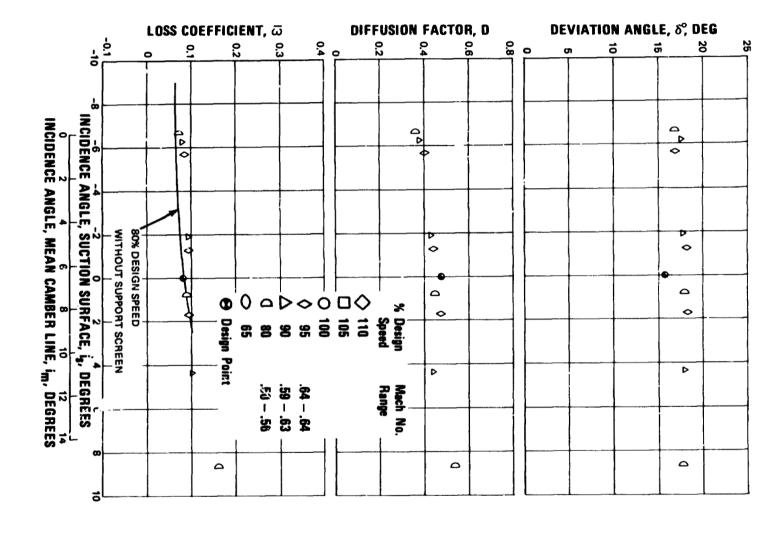


Figure 31 Stator Blade Element Performance with Baseline Screen, 90% Span

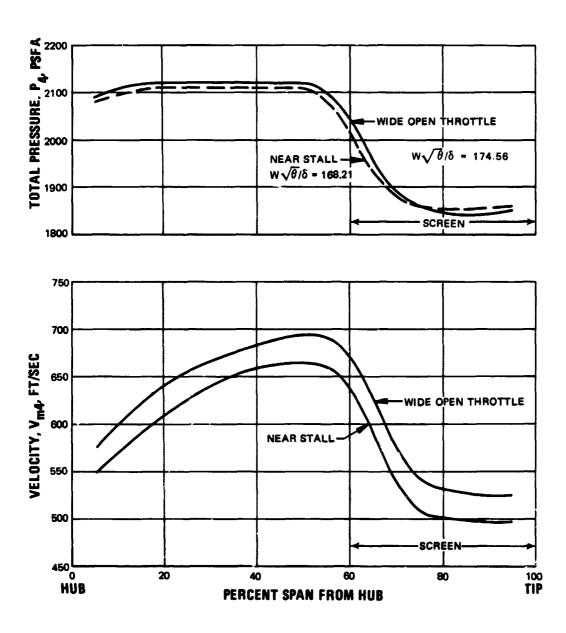


Figure 32 Rotor Inlet Radial Distortion Pattern at 55% Design Speed

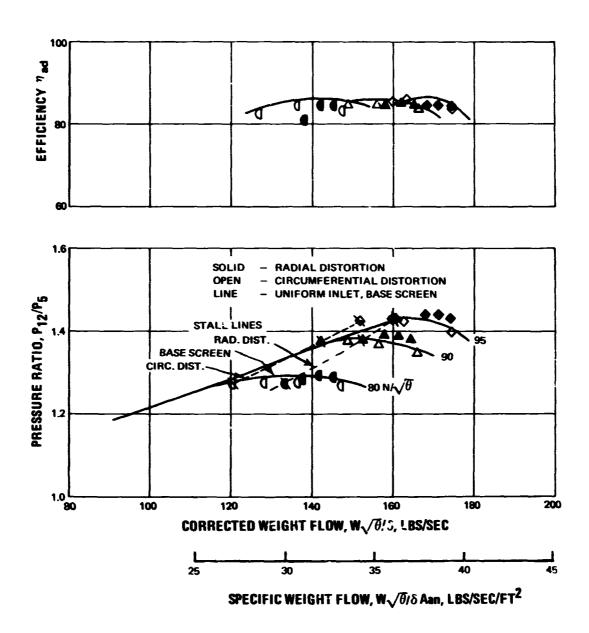


Figure 33 Over-All Stage Performance, Radial Inlet Distortion, Circumferential Inlet Distortion.

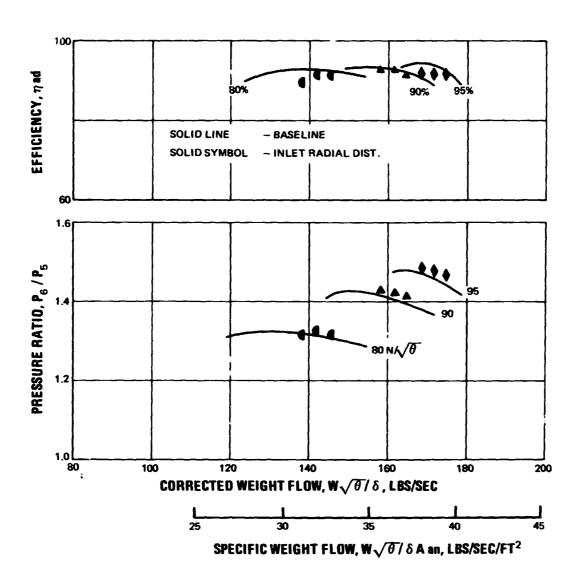


Figure 34 Over-All Rotor Performance, Radial Inlet Distortion

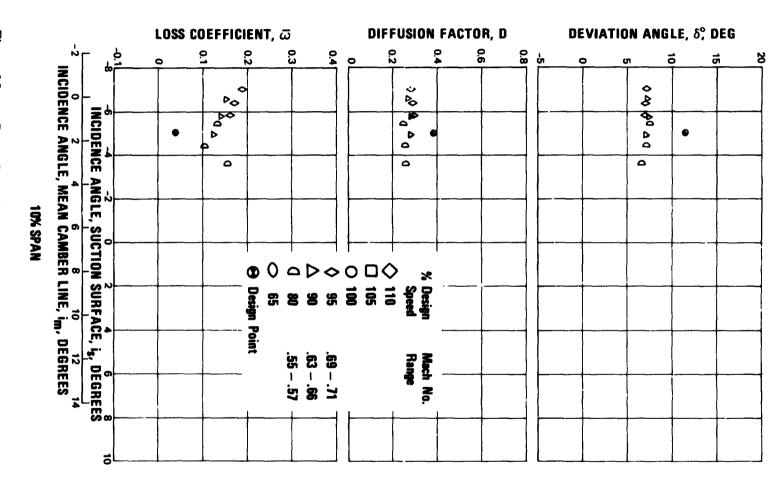


Figure 35 Rotor Blade Element Performance, Radial Distortion

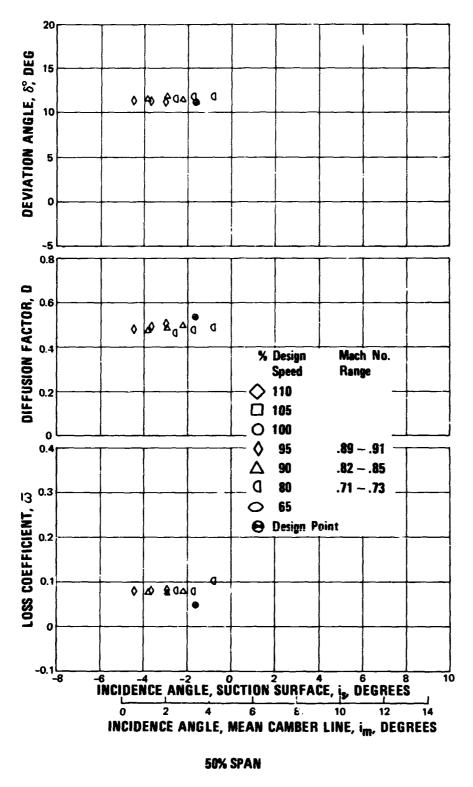


Figure 35 Rotor Blade Element Performance, Radial Distortion

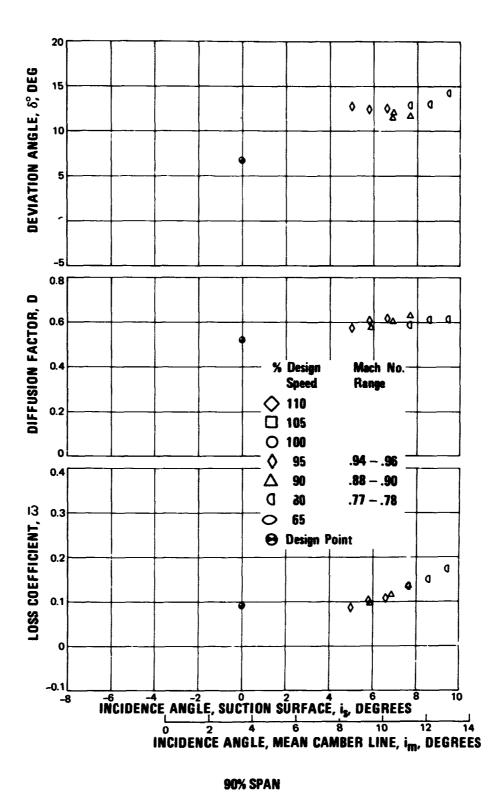


Figure 35 Rotor Blade Element Performance, Radial Distortion

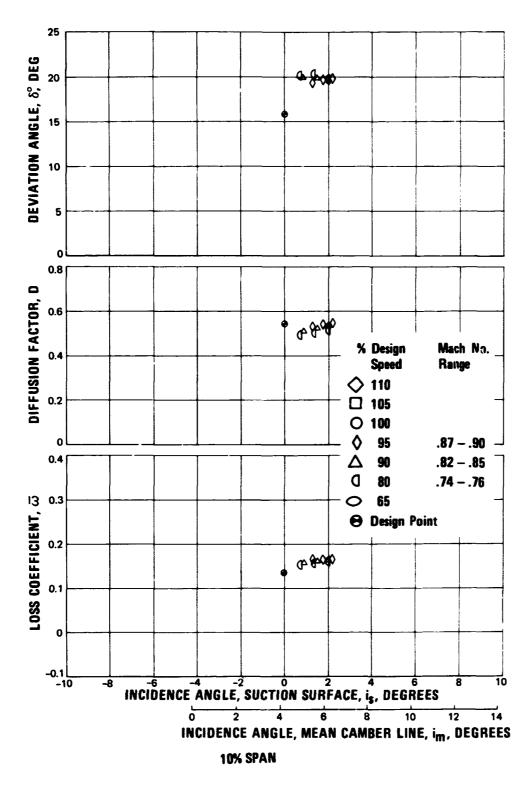


Figure 36 Stator Blade Element Performance, Radial Inlet Distortion

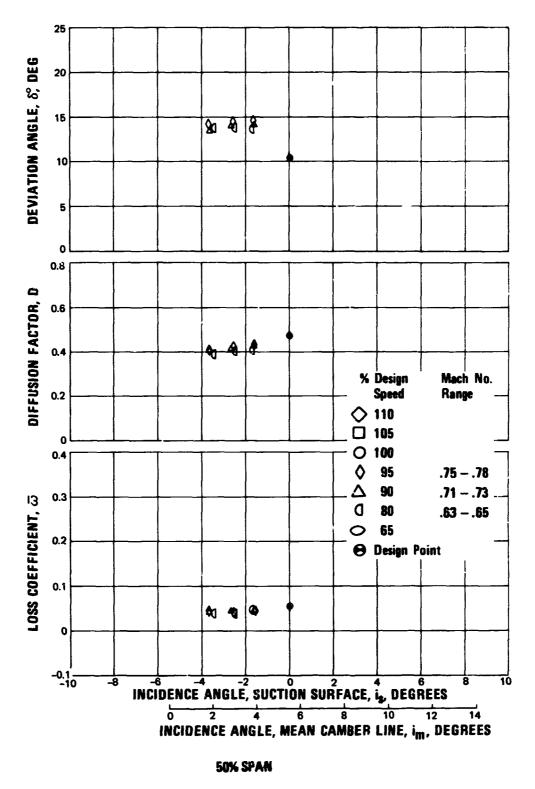


Figure 36 Stator Blade Element Performance, Radial Inlet Distortion

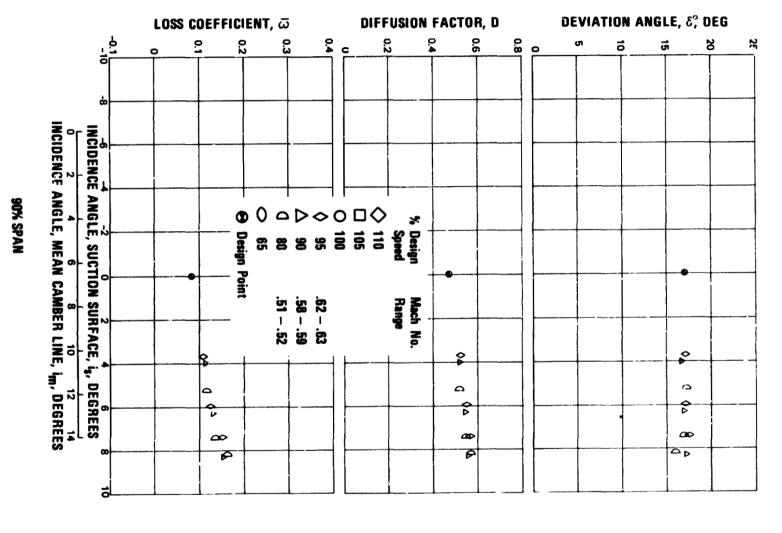


Figure 36 Stator Blade Element Performance, Radial Inlet Distortion

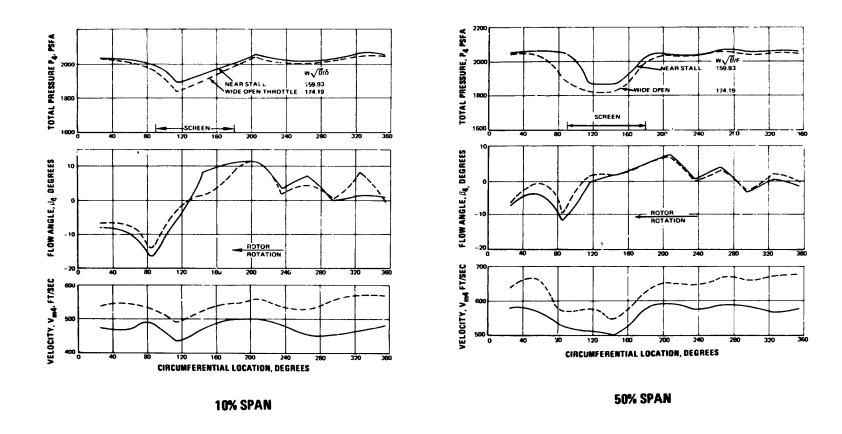


Figure 37 Rotor Inlet Circumferential Distortion Patterns, 95% Design Speed

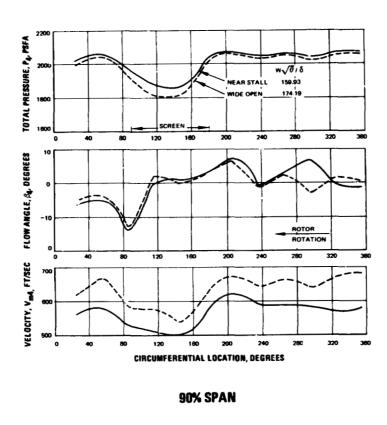


Figure 37 Rotor Inlet Circumferential Distortion Patterns, 95% Design Speed

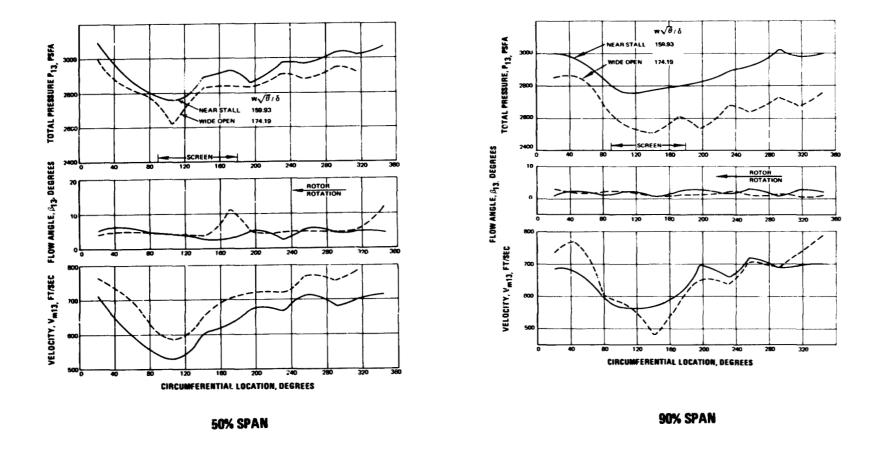


Figure 38 Stator Discharge Circumferential Distortion Patterns, 95% Design Speed

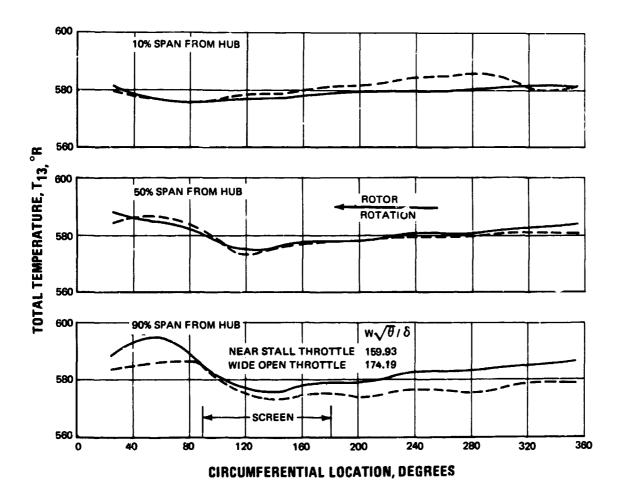


Figure 39 Stator Discharge Circumferential Temperature Patterns, 95% Design Speed

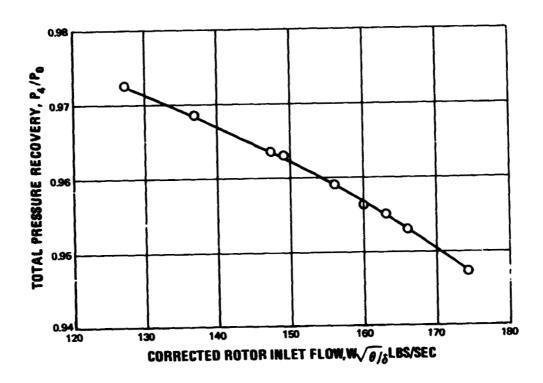


Figure 40 Circumferential Screen Pressure Recovery

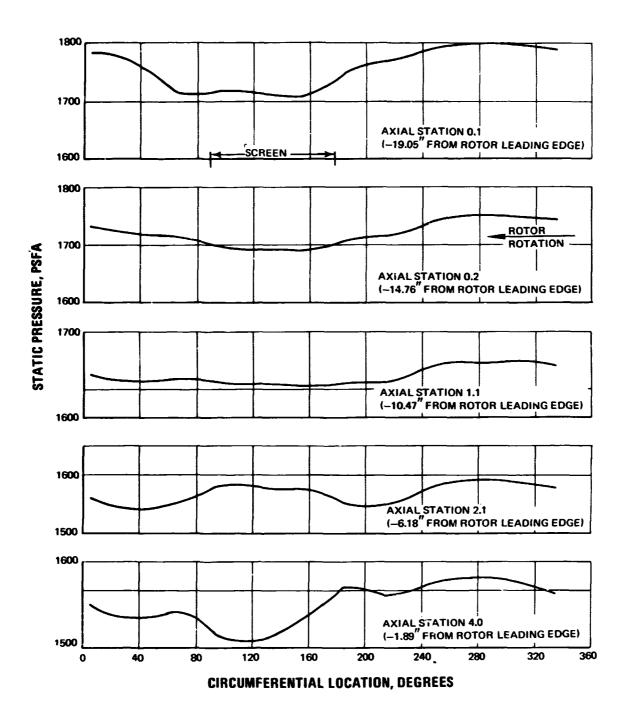


Figure 41 Circumferential Patterns of Rotor Inlet Static Pressure at the Tip During Circumferential Inlet Distortion, Near Stall, 95% Design Speed (W  $\sqrt{\theta}/\delta$  = 159.93)

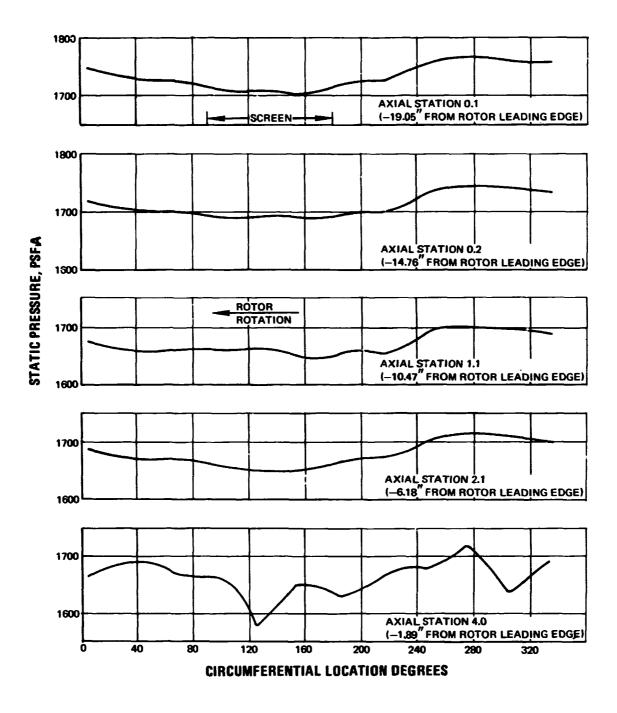
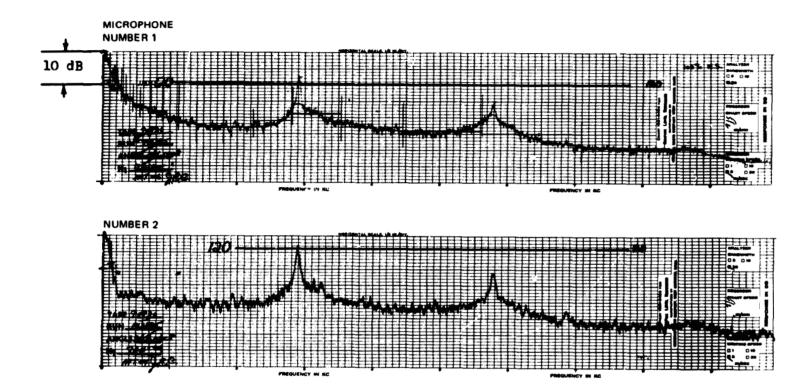


Figure 41 Circumferential Patterns of Rotor Inlet Static Pressure at the Hub, During Circumferential Inlet Distortion, Near Stall, 95% Design Speed (W\overline{\theta}/\delta = 159.93)



NOTE: REFERENCE SPL LINE AT 120 dB, RE .0002 DYNES/CM<sup>2</sup>

Figure 42 Compressor Noise Spectra from Plenum Microphones, 100% Design Speed, Near Stall ( $W\sqrt{\theta}/\delta$  = 183.2 LBS/SEC)

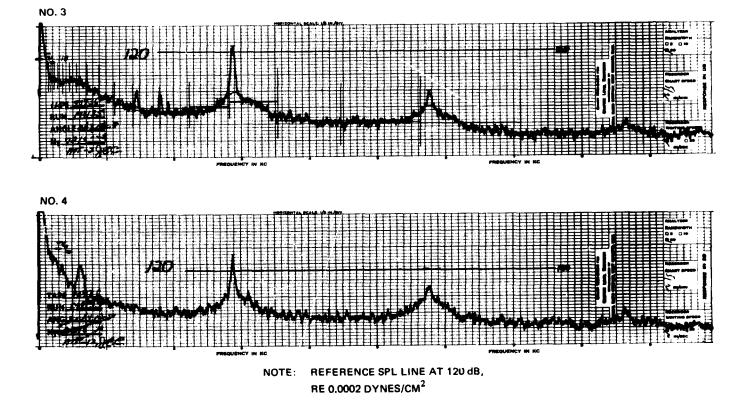
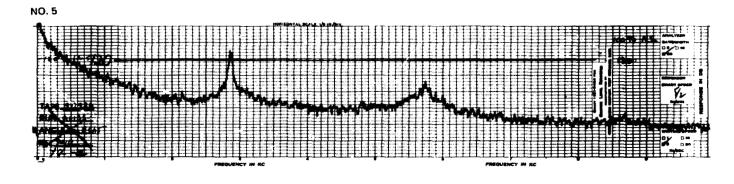
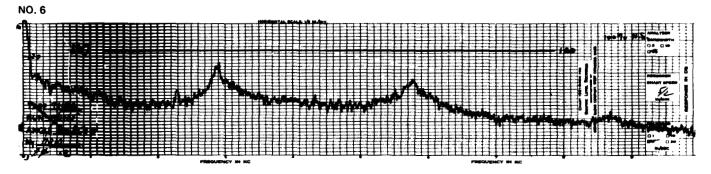


Figure 42 Compressor Noise Spectra from Plenum Microphones, 100% Design Speed, Near Stall ( $W\sqrt{\theta}/\delta$  - 183.2 Lbs./Sec.)

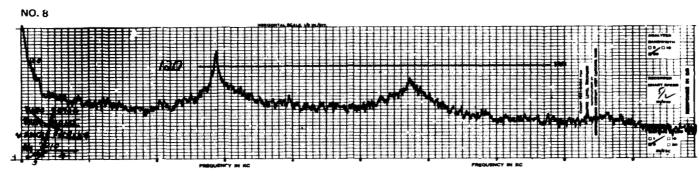




NOTE: REFERENCE SPL LINE AT 120 dB,
RE 0.0002 DYNES/CM<sup>2</sup>

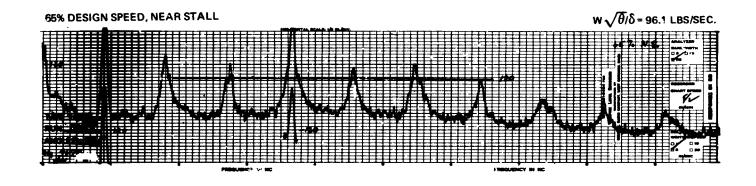
Figure 42 Compressor Noise Spectra from Plenum Microphones, 100% Design Speed, Near Stall ( $W\sqrt{\theta}/\delta = 183.2$  Lbs./Sec.)





NOTE: REFERENCE SPL LINE AT 120 dB,
RE 0.0002 DYNES/CM<sup>2</sup>

Figure 42 Compressor Noise Spectra from Plenum Microphones, 100% Design Speed, Near Stall ( $W\sqrt{\theta}/\delta = 183.2$  LBS/SEC)





NOTE: REFERENCE SPL LINE AT 120 dB, RE 0.0002 DYNES/CM<sup>2</sup>

Figure 43 Sound-Pressure Spectra, Microphone Number 5

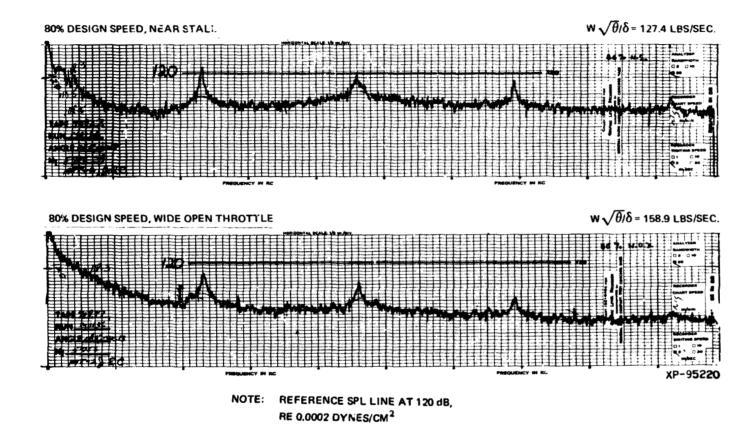


Figure 43 Sound Pressure Spectra Microphone Number 5

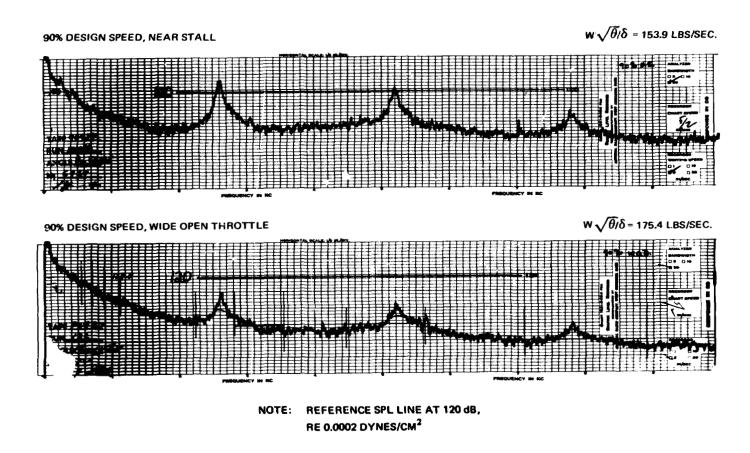
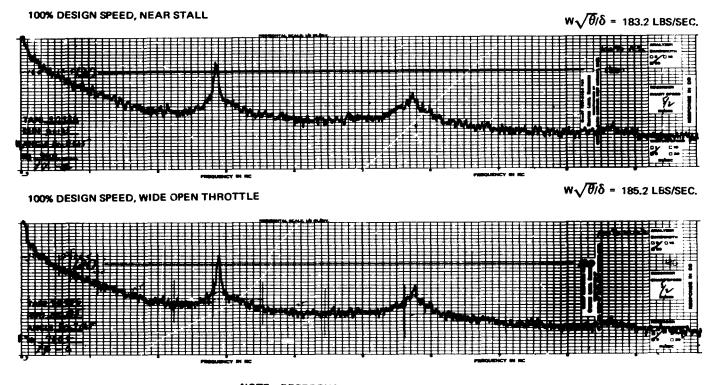


Figure 43 Sound Pressure Spectra Microphone Number 5



NOTE: REFERENCE SPL LINE AT 120 dB, RE .0002 DYNES/CM<sup>2</sup>

Figure 43 Sound Pressure Spectra Microphone Number 5





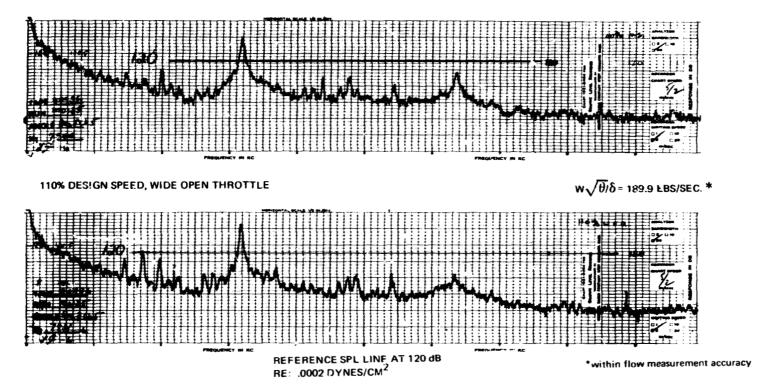
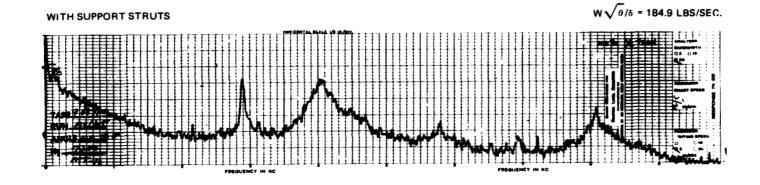


Figure 43 Sound Pressure Spectra Microphone Number 5

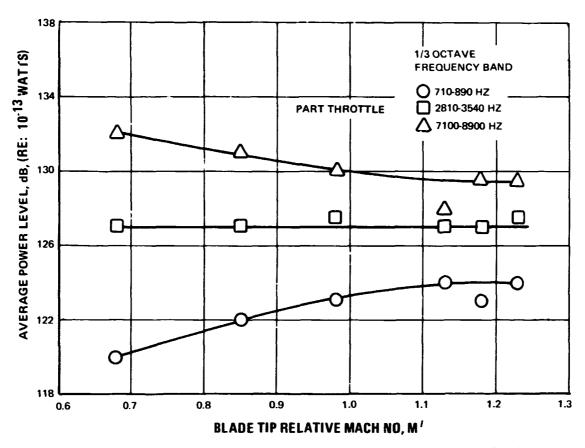


WITHOUT SUPPORT STRUTS

W√0/6 ≈ 184.5 LBS/SEC.

NOTE: REFERENCE SPL LINE AT 120 dB RE: .0002 DYNES/CM<sup>2</sup>

Figure 44 Compressor Inlet Noise Spectra with and without Inlet Support Struts, 100% Design Speed



Average Sound Power Level vs. Blade Tip Relative Mach Number Figure 45 140 BROADBAND NOISE POWER LEVELS, dB, (RE: 10<sup>-13</sup> WATTS) 135 0 130 RIG OPERATING CONDITION O WIDE OPEN THROTTLE PART THROTTLE NEAR STALL 125 0.60 1.10 1.20 0.70 0.80 ე.90 1.00 1.30 BLADE TIP RELATIVE MACH NO, M'

Figure 46 Total Sound Power Level

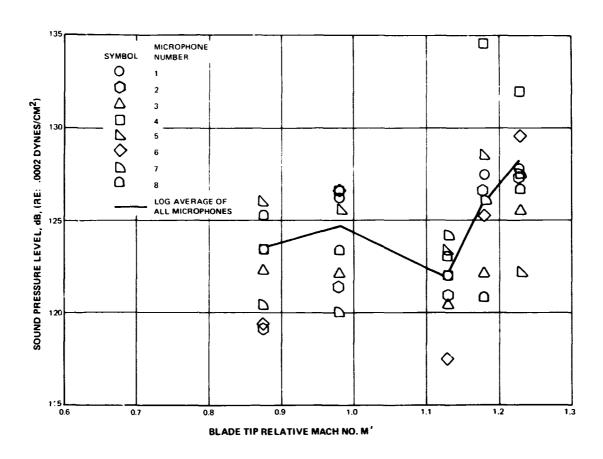


Figure 47 Time-Averaged Blade-Passing Inlet Frequency Noise vs. Blade Tip Mach Number, Part-Throttle

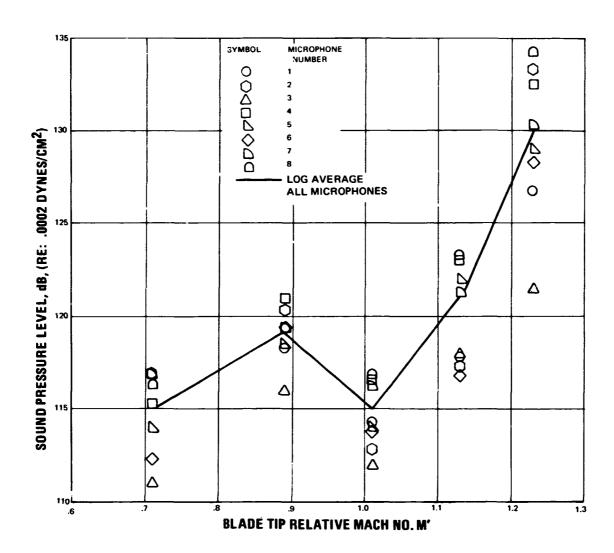


Figure 48 Time-Averaged Blade-Passing Frequency Inlet Noise vs. Blade Tip Mach Number, Wide-Open Throttle



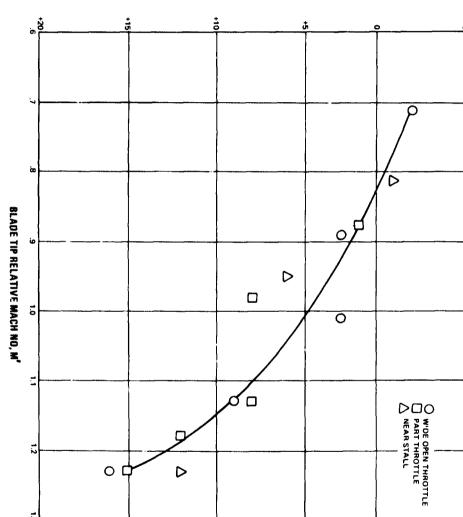


Figure 4.9 Noise Level Difference Between Blade-Passing Frequency and the First Harmonic Tone

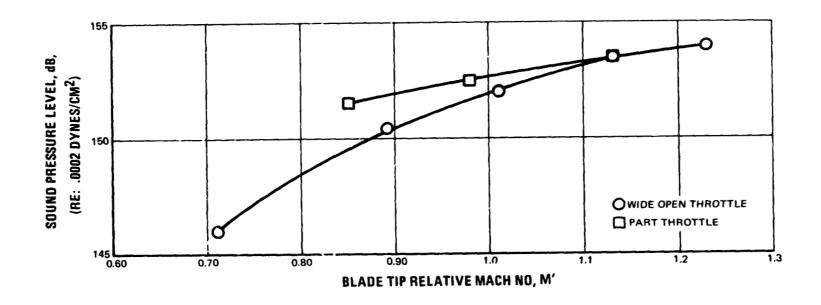


Figure 50 Time-Averaged Blade-Passing Frequency Discharge Noise vs. Blade Tip Relative Mach Number

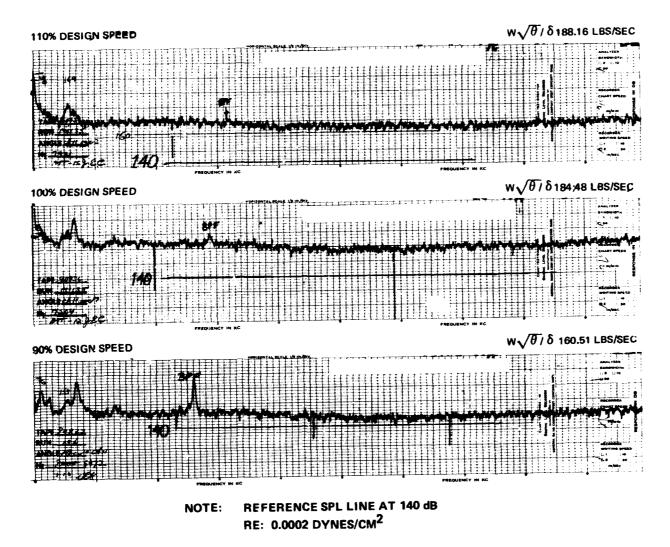
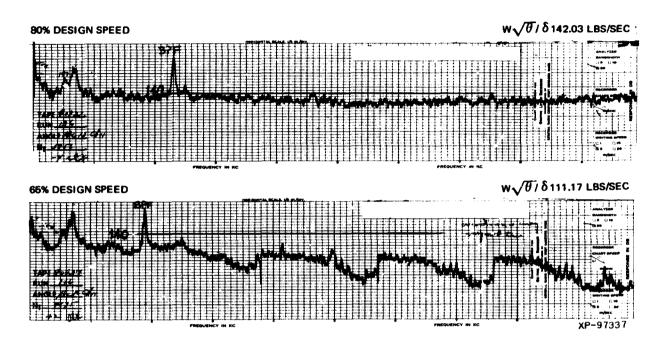
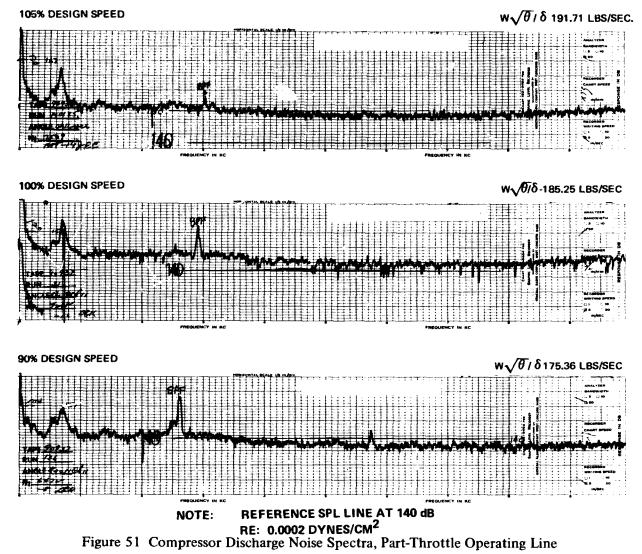


Figure 51 Compressor Discharge Noise Spectra, Wide-Open Throttle Operating Line



NOTE: REFERENCE SPL LINE AT 140 dB RE: 0.0002 DYNES/CM<sup>2</sup>

Figure 51 Compressor Discharge Noise Spectra, Wide-Open Throttle Operating Line



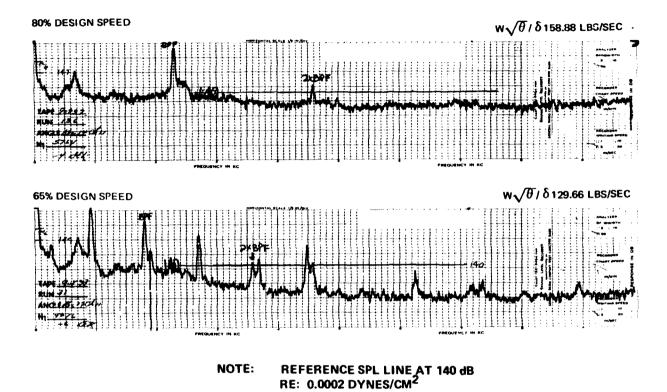


Figure 51 Compressor Discharge Noise Spectra, Part-Throttle Operating Line

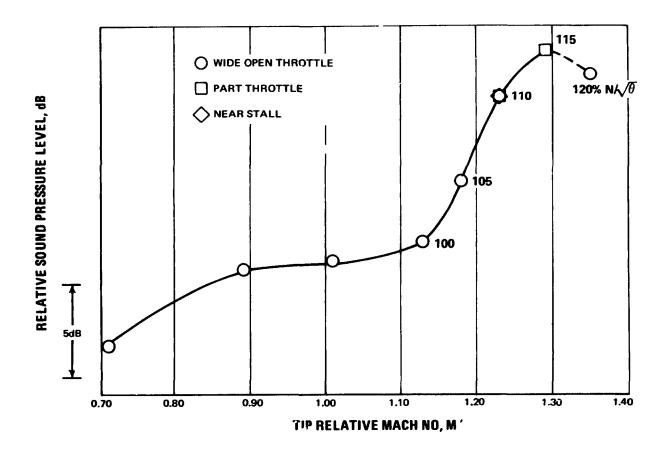


Figure 52 Supersonic Fan Noise Level (Combination Tones) vs. Blade Tip Relative Mach Number

## APPENDIX 1

Symbol and Performance Parameter Definitions

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#### APPENDIX 1

### A. Symbols

 $A_{an}$  -  $\mu$  ulus area, ft<sup>2</sup> (station  $\sigma$ , fig 9)

a - total room absorption

D - diffusion factor

dB - decibel

F - rotating stall period

fz - bandwidth of each 1/3 octave, Hz g<sub>C</sub> - conversion factor, 32.17 lb<sub>m</sub> ft/lb sec<sup>2</sup>

H - reverberation time, sec

i<sub>m</sub> - incidence angle, angle between inlet air direction and line tangent to blade mean camber line at leading edge, degrees

is - incidence angle, angle between inlet air direction and line tangent to blade suction surface at leading edge, degrees

M - Mach number

MR - mass average in radial direction (tables 25-33)

N - rotor speed, rpm

P - total pressure, psfa

PWL - sound power level based on a reference power of  $10^{-13}$  watt

p - static pressure, psfa

R - gas constant for air, ft lb/lbm °R

r - radius, ft

S - acoustic pressure, dynes/cm<sup>2</sup>

So - reference acoustic pressure of  $2 \times 10^{-4}$  dyne/cm<sup>2</sup>

SFL - sound pressure level (dB, 0.0002 dyne/cm<sup>2</sup>)

T - total temperature, °R

t - static temperature, °R

U - rotor speed, ft/sec

V - air velocity, ft/sec

V<sub>z</sub> - axial air velocity, ft/sec

Vm - meridional air velocity,  $(V_r^2 + V_z^2)^{1/2}$ , ft/sec

#### APPENDIX 1 (CONT'D)

 $V_{\theta}$  - tangential component of air velocity  $(V^2 - Vm^2)^{1/2}$ , ft/sec

v - volume of a chamber, ft<sup>3</sup>

W - weight flow, lbs/sec

w - acoustic power-ergs/sec

w<sub>o</sub> - reference power of 10<sup>-13</sup> watt

z - characteristic impedance of the medium, rayls, c.g.s. units

 $\beta$  - absolute air angle  $\left[\cot^{-1}\left(V_{m}/V_{\theta}\right)\right]$  degrees

 $\beta'*$  - metal angle on conical surface between tangent to mean camber line and axial direction at leading and trailing edge, degrees

 $\Delta\beta$  - air turning angle  $\beta$  5 -  $\beta$  6 for rotors and  $\beta_{11}$  -  $\beta_{12}$  for stators, degrees

 $\Delta \beta^*$  - camber angle, degrees

 $\lambda$  - ratio of specific heats for air, 1.4

δ - ratio of inlet total pressure to standard pressure of 2116.22 lbs/ft<sup>2</sup>

 $\delta^c$  - deviation angle, angle between exit air direction and tangent to blade mean camber line at trailing edge, degrees

 angle between tangent to streamline projected on meridional plane and axial direction, degrees

 $\eta$  - efficiency, %

 $\theta$  - ratio of inlet total temperature to standard temperature of 518.6°R

 $\rho$  - mass density, lbs-sec<sup>2</sup>/ft<sup>4</sup>

 $\sigma$  - solidity, ratio of chord to spacing

 $\overline{\omega}$  - total pressure loss coefficient

ω - angular velocity of rotor, radians/sec

#### Superscripts:

' - relative to moving blades

\* - designates blade metal angle

#### Subscripts:

ad - adiabatic

, -

#### APPENDIX 1 (CONT'D)

- p polytropic or profile
- r radial direction
- sh shock
- s suction surface
- z axial direction
- 0 plenum chamber
- 4 instrument plane upsteam of rotor
- 5 station at rotor inlet
- 6 station at rotor exit
- 10 instrument plane upstream of stator
- 11 station at stator leading edge
- 12 station at stator trailing edge
- 13 instrument plane downstream of stator

#### B. Performance Parameter Definitions

a) Relative total temperature

$$T'_{5} = t_{5} \left[ 1 + \frac{\gamma - 1}{2} (M'_{5})^{2} \right]$$
 (rotor in)
$$T'_{6} = T'_{5} + \left[ \frac{(\omega r_{5})^{2} - (\omega r_{6})^{2}}{\frac{2\gamma}{\gamma - 1} Rg_{c}} \right]$$
 (rotor out)

b) Incidence angle based on mean camber line

$$i_{m} = \beta^{\dagger}_{5} - \beta^{\dagger}_{5} \tag{rotor}$$

$$i_{m} = \beta_{11} - \beta_{11}^{*}$$
 (stator)

c) Deviation (DEV, Table 8, δ°)

$$\delta^{\circ} = \beta^{\dagger}_{6} - \beta^{\dagger *}_{6} \tag{rotor}$$

$$\delta^{\circ} = \beta_{12} - \beta^{*}_{12} \qquad (statur)$$

d) Diffusion factor (D-FAC, Table 8)

$$D = 1 - \frac{V_{6}'}{V_{5}'} + \frac{r_{6}V_{\theta 6} - r_{5}V_{\theta 5}}{(r_{5} + r_{6})\sigma V_{5}'}$$
 (rotor)

$$D = 1 - \frac{V_{12}}{V_{11}} + \frac{r_{11}^{V_{\theta}} 11^{-r_{12}^{V_{\theta}} 12}}{(r_{11} + r_{12})\sigma V_{11}}$$
 (stator)

e) Loss coefficient (OMEGA-B, Table 8)

$$\bar{\omega} = \frac{P_5' \left[ \frac{T_6'}{T_5'} \right]^{\frac{\gamma}{\gamma - 1}} - P_6'}{P_5' - P_5}$$
 (rotor)

$$\bar{\omega} = \frac{P_{11} - P_{12}}{P_{11} - P_{11}}$$
 (stator)

f) Loss parameter (LOSS-P, Table 8)

$$\frac{\bar{\omega}\cos\beta'_{6}}{2\sigma} \tag{rotor}$$

$$\frac{\bar{\omega} \cos \beta_{12}}{2\sigma}$$
 (stator)

g) Polytropic efficiency (EFF-P, TOTAL, Table 8)

Polytropic efficiency (EFF-P, TOTAL, Table 8)

$$\frac{\gamma_{-1}}{\gamma} \ln \left[ \frac{P_6}{P_5} \right]$$
1)  $\eta_p = \frac{1}{\ln \left[ \frac{T_6}{T_5} \right]}$  (rotor)

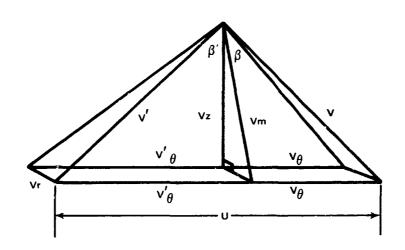
2) 
$$\eta_{p} = \frac{\frac{\gamma - 1}{\gamma} \ln \left[\frac{p_{12}}{p_{11}}\right]}{\ln \left[\frac{t_{12}}{t_{11}}\right]}$$
 (stator)

h) Adiabatic efficiency (EFF-AL, TOTAL, Table 8)

$$\eta_{ad} = \frac{\left[\frac{P_6}{P_5}\right] \frac{\gamma_{-1}}{\gamma}}{\left[\frac{T_6}{T_5}\right] - 1}$$
 (rotor)

$$\eta_{\text{ad}} = \frac{\left[\frac{P_{12}}{P_5}\right]^{\frac{\gamma-1}{\gamma}} - 1}{\left[\frac{T_{12}}{T_5}\right] - 1}$$
 (stage)

i) Wake blockage factor
$$\bar{K} = \frac{\sum_{i=1}^{n} \rho AV}{n} / \rho AV_{avg}$$



### APPENDIX 2

Blade-Element and Overall Performance with Uniform Inlet Flow

STATOR

DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 U-2 IN IN FT/SEC 10 15 30  $2\mathbf{r}_{11}$   $2\mathbf{r}_{12}$   $V_{11}$   $V_{12}$   $V_{m11}$   $V_{m12}$   $V_{\theta 11}$   $V_{\theta 12}$   $\beta_{11}$   $\beta_{12}$   $\beta_{11}$   $\beta_{12}$   $V_{11}$  $U_6$ 70 85 30 95 INCS INCH DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-B EFF-AD EFF-P SPAN DEGREE DEGREE DEGREE DEGREE TOTAL PROFILE POI SHOCK TOTAL STATIC 10  $\widetilde{\omega}\cos\beta_{12}$ 15 30  $i_{s11}$   $i_{m11}$   $\delta_{12}$ D  $7 \text{ p} \quad \text{M}_{11} \quad \text{M}_{12} \quad \text{M}_{11} \quad \text{M}_{12}$ 50  $\eta$  ad 85  $(\overline{\omega} - \overline{\omega}_{sh})\cos p_{12}$ 90

NCOR-1 NCOR-1 NC/A-1 TO2/ PO2/ FFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 PO1 N N DEGREE DEGREE 
$$\frac{N}{\sqrt{\theta}} \frac{W\sqrt{\theta}}{\sqrt{\theta}} \frac{T_{12}}{\sqrt{\theta}} \frac{P_{12}}{\sqrt{\theta}} \frac{\eta_{ad}}{\sqrt{\theta}} \eta_{p}$$
 See Figure 9

95

% SPAN		DIA-2	V-1 FI/SEC	V-2 FT/SEC	VM-1 FT/SEC	VM-2 FT/SEC	FT/SEC	VO-2 FT/SEC	B-1 DEGRÉE	8-2 DEGREE	B'-1 DEGREE	DEGREE	FT/SEC	FT/SEC	V0'-1	V01-2	FT/SEC	U-2 FT/SEC
5	13. 120	16.030	614	995	<b>605. 4</b>	<b>538.</b> 5	0	807.8	0	55. 9	35.5	-26. 2	751	632	-412	305	424	518
10	14.100	16.790	620	983	621.5	586.1	0	775.8	0	52. 0	37.0	-21.0	778	645	-445	241	455	544
15	15. 170	17. 580	627	971	627.4	620.0	0	734.8	0	49.2	38.6	-15.4	804	656	-488	170	489	568
30	18, 280	19.910	650	916	652.1	640.4	0	655. 1	0	45.6	42.7	- 0.6	877	641	-502	7	586	643
50	22, 190	23.090	671	836	671.1	606.1	0	576.4	0	43.8	47.2	15. 5	981	629	-716	-173	714	742
70	25, 880	26. 260	680	782	680.4	583.9	0	554.8	0	41.7	51 1	29. 4	1077	668	-836	-328	838	848
85	28.450	28.610	682	755	682.6	569.9	0	492.3	Ô	40.8	53.3	37. 5	1145	715	-918	-432	918	923
90	29. 320	23.410	683	747	682.8	564. 1	0	488. 0	Õ	40.8	54.1	39.6	1167	729	-946	-461	944	949
95	30. 150	30. 180	683	737	682.6	556.9	ŏ	487.9	Õ	41.3	54.8	41.8	1189	738	-974	-488	969	973
	50.100	00.100	300		302.3	000.0	ū	2011.0	v							_		
	INCS	INCH	DEV	TURN	CAMBER	SOLID	TY D-FAC	OMEGA-F	3 LOSS-	P LOSS-#	P PU2/	' EFF-P	FFF-AD	OMEGA.	-B M-1	M_2	M'-1	M*-2
% SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE				TOTAL	PROFILE	PO1	TOTAL	TOTAL	SHOCK				-
5	-6.1	0. 81	10.3	61.7	73.1	2 41	. 390	. 0673	. 0124	. 0124	1.540	. 9601	. 9576	0	. 56 54	. 902	. 698	. 514
10	-5. 0	1.65	11.5	58. 0	66. 1	2.30	. 385	. 0377	. 0077	. 0077	1.540	. 9750	. 9735	0	. 5718	. 891	. 717	. 586
15	-4.3	1.99	12.2	54.0	63.0	2.18	. 400	. 0264	. 0057	. 0057	1.540	. 9807	. 9795	0	. 5797	. 828	. 738	. 594
30	-3.0	2.69	13.0	43. 3	53. 2	1.93	. 473	. 0324	. 0085	. 0685	1.540	. 9719	. 9702	0	. 6045	. 820	. 813	. 574
50	-1.6	3. 41	11.2	31.7	39.0	1.69	. 535	. 0481	. 0136	. 0136	1.540	. 9535	. 9506	0	. 6245	. 740	. <b>9</b> 09	. 551
50 70	-1.6 -0.5	3. 73	9.6	21.7	26.9	1.53	. 537	. 0673	. 0130	. 0165	1. 540	. 9274	. 9229	. 0087	6329	, 686	1.001	. 586
							. 525	. 9867	. 0238	. 02. 0	1.540	. 9022	. 8961	. 0142	. 6342	. 658	1.066	. 624
85	0.0	3.71	7.1	15.8	19.5	1.43	. 523	. 0979	. 0269	0225	1.540	. 8871	. 8800	. 0162	. 6360	. 649	1.089	. 635
90	0.0	3.15	6.8	14. 5	18.3	1.40	. 523	. 1197	. 0313	. 0263	1.540	. 8672	. 8589	. 0196	. 63 58	. 642	1.110	642
95	-0. 2	3. 20	7.0	13.0	17.4	1.38	. 553	. 1197	. 0313	. 0203	1.040	. 8072	. 0505	. 01.50	. 00 00	. 012		
		NCOR-1	WCOR-	1 WC/A-	1 Too/	PÚ2/	FEF-A	EFF-P							STA-1	STA-2	SLANT-1	SLANT-2
				LBM/SE		P01	X X	X .									DEGREE	DEGREE
		IVE.	DUD DEA	SOFT	<u> </u>	-F-1	~	~										
		7400.0	105.0		1, 1410	1.546	າດ 93.3	93.8							5.0	6.0	86.05	95.02
		1400.0	2070	42.0	24 2 2 2 2	**3**	JO -01-0	50.0							J - V			
CTA	TOR																	
DIA	IUK																	
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V0~2	B=1	8-2	B*-1	8*-2	v*-1	V1->	V0"-1	V01-2	U-1	U+2
% SPAN	IN						FTZSEC				DEGREE						FT/SEC	
5	17.720	18. 580	978	575	622.7	576	747	0		0	-16. (	46.30			-		571	598
10	18.350	19.110	962		641.6		710	-	49.7	-			652 652	818	179	-601		616
15	19.070	19.740	94?	600		600		0	47.8	0	-21.4	46.05	657	850	119	-618	592	
30		21.600	914	617	659.3	617	678	0	45.8	0	- 5.9	46.00	662	882	64	-637	614	637
50	21.140	24.200		636	673. 9	636	614	0	42.4	0	6. 1	47.55	676	943	-68	-693	682	697
70	23.970		875	630	674.3	630	5: 5	0	39. 5	0	17.8	51.00	708		-216	-782	777	782
	26. 790	26.880	840	624	€65.0	62-1	511	0	37.6	0	28.0	54. 23	752	1070	-354	-867	868	871
85	28.860	28. 900	818	619	655. 4	619	488	0	36. 7	0	33.9	56. <b>52</b>		1120	-442	-933	989	935
90	29. 570	29.600	811	616	649.8	616	484	0	36.8	0	35.8	57.30		1135	<b>-469</b>	-954	9 56	957
95	30. 240	30. 270	805	612	642.4	612	485	0	37.0	0	37.3	58.08	809	1152	-492	-978	977	978
	INCS	INCM	DEV	TURN	CAMBER	COL 101	Y D-FAC	AMEGA-P	1050-6	LOSS-F	P P02/	OMEGA-8	E AD	FFF-P	M-1	M-2	M*-1	M1-2
% SPAN		DEGREE C				30-101	I D-FAC	OHEON-U				SHOCK					·· -	
					DEGREE				TOTAL	-			TOTAL	STATIC		-	ence.	700
5	0	3.95	16.2	49.7	61.8	2.105	. 593	.210	. 0485	. 0495	. 9184	. 7682	0	0	. 885	4923	. 5890	. 706
10	0	4. 25	15.9	47.8	59. <u>ż</u>	2.032	. 558	. 165	. 0399	. 0399	. 936 5	. 7989	0	0	. 870	. 5142	. 5928	. 734
15	0	4. 32	15. 5	45.8	56.8	1.950	. 528	. 129	. 03 07	. 0307	. 9526	. 8338	O	0	. 854	. 5335	. 5965	. 763
30	0	4. 79	13.9	42.4	51.7	1.758	. 495	. 069	. 0171	. 0171	. 9751	. 8926	0	0	. 817	. 5510	. 6053	823
50	0	5. 48	10.3	39. 5	44.7	1.552	. 483	. 046	. 0154	. 0154	. 9831	. 9114	0	0	. 777	. 5458	. <b>63</b> 05	. 867
70	0	6.09	12.5	37.6	44.4	1.388	.473	. 043	. 0192	. 0192	. 9830	. 8940	0	0	. 743	. 5389	. 6654	. 920
85	0	6. 50	15.2	36.7	45.2	1.285	. 473	. 061	. 0273	. ∪273	. 9789	. 8571	0	0	. 719	. 5322	. 6955	. <b>96</b> 0
90	0	6. 59	15.8	36.8	45.9	1.258	. 477	. 073	. 0312	. 0312	. 9765	. 8397	G	0	. 712	. 5281	. 7037	975
95	0	6 75	16.3	37.0	46.8	1.230	. 484	. 096	. 0369	. 0369	. 9729	. 8163	0	6	. 705	. 5234	. 7070	988
		NeCa 4																
		Mr Grai													STA-1	VIII-	- ANT-	SLANT-2
				1 WC/A-1		P02/	EFF-AD								21W_T			_
				LBM/SEC		P027	STETAL	% %							31A-1		DEGREE	DEGREE
		RPM LE	BM/SEC	LBM/SEC SOFT													DEGREE	DEGREE
			BM/SEC	LBM/SEC											11.0			DEGREE

Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR 65% of Design Speed DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2 ASPAN (N IN FT/SEC 0 590.6 13.120 16.030 386.2 768.7 386.2 492.1 .00 50.20 35.38 -27.45 473.7 554.5 -274.2 255.5 274.2 335.1 14.100 16.790 393.6 748.0 393.6 433.7 ·0 570·6 .<del>00 49.71 36.82 -24.39 491.8 531.4 -294.7 219.6 294.7 3</del>53.9 .00 47.94 38.32 -19.08 511.3 510.6 -317.1 167.0 317.1 367.4 .00 42.38 42.38 -2.43 566.6 480.4 -382.1 20.9 382.1 416.1 12,170 17,580 401.0 719.7 401.0 481.8 .0 534.5 18.286 19.910 418.3 648.0 418.3 478.2 +0 437-0 22.190 23.090 432.0 573.2 432.0 452.7 •0 351.4 ·UQ 37.79 47.01 16.13 633.9 472.8 ~463.8 -131.2 463.8 482.6 25.860 26.260 437.4 519.9 437.4 432.9 +00 33+61 51+02 31+03 695+8 506+1 -540+9 -261+0 540+9 548+9 -0 287-8 28.450 28.610 437.0 492.3 437.8 417.8 •0 260•4 .00 31.94 53.63 38.94 738.4 537.3 -594.6 -337.6 594.6 598.p .00 32:08 54:49 42:09 752:9 535:1 ~612:8 ~358:4 612:8 614:7
.00 34:24 55:28 45:55 766:7 529:9 ~630:2 -378:3 630:2 630:8 -6 256-3 29-320 29-410 437-3 472-6 437-3 397-0 30.150 30.180 436.7 448.8 436.7 371.0 •0 252•5 INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1 M'-1 % SPAN DEGREE DEGREE DEGREE DEGREE TOTAL PROFILE POL TOTAL TOTAL SHOCK 1.33 9.54 62.81 71.12 2.4320 .1113 .1469 2.00 6.80 61.21 66.10 2.2837 .1954 .1102 -5.58 .0268 .0268 1.2190 .9189 .9166 .3509 .6994 • 0000 .4315 -4,62 •0220 ·0220 1 · 2262 · 9354 . 9335 -0000 .3585 .6785 +4499 .4820 7.83 57.40 62.98 2.1549 .2615 .0864 -3.94 .9428 2.32 .0189 .0189 1.2238 .9444 .0000 .3654 .6511 .4681 .4619 30 -2.82 2.93 11.20 53,20 1,9028 ,3630 ,0357 • 00<sup>94</sup> +0094 1.2119 .9698 . 9689 ·5178 44.81 -0000 .3808 .5830 .4322 3.36 11.61 30.88 39.15 1.6895 .4212 .0438 .0124 -1.00 .0124 1.1928 .9520 .9507 .0000 .3930 .5129 .5787 .4230 ---24 3.05 10+95 19.99 26.99 1.5344 \*<del>4082 \*0430</del> **▼0120** \*0120 1+1767 +9406 +9391 **▼0000 ±3979** -4639 <del>-6339</del> <del>-4516</del> 3.98 8.98 14.70 19.69 1.4421 .3950 .0581 .0157 .0157 1.1681 .9100 .9078 ·0000 ·3981 ·4384 .6728 .4785 3.65 9.82 12.39 18.34 1.1148 .097 .0941 .0247 .0247 1.1583 .8508 .8474 3.63 11.40 9.73 17.48 1.3891 .4275 .1342 .0338 1.1462 .7817 .7771 90 -35 -6856 -4757 .26 ·0000 ·3971 ·3982 .6976 .4701 WCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 PO1 DEGREE DEGREE SQFT 4790. 131.23 29.61 1.0546 1.1883 92.542 92.81 5.0 6.0 86.05 95.02 STATOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2
N IN FIXEC FIX % SPAN IN 17.720 18.580 715.0 511.7 476.5 511.1 533.1 24.1 48.21 2.70 -18.86 35.48 18.350 19.110 712.0 519.3 483.6 518.5 522.5 28.7 47.21 3.17 -16.03 35.56 503.5 627.6 162.8 -364.2 370.4 388.3 48.21 2.70 -18.86 35.48 503.3 637.4 139.0 -370.7 383.5 399.4 19.070 19.740 697.4 525.7 491.7 525.3 494.4 19.8 45.14 501.5 656.0 95.8 -392.8 398.6 412.6 2.16 -11.03 36.78 21.140 21.600 656.7 518.7 511.1 518.4 412.0 18.3 38.84 2.02 3.32 39.87 513.2 675.7 -29.9 -453.2 23.970 24.200 608.5 501.6 535.4 501.2 338.5 19.0 33.79 2.17 17.77 44.14 531.8 698.9 -162.5 -486.8 441.9 451.5 501.0 505.8 26.770 26.880 570-1 490-6 495-3 490-6 282-1 -4-9 29-66 --58 29-25 49-11 568-3 749-7 -277-8 -566-8 560-0 561-8 28.860 28.900 549-8 481-4 485-4 481-3 258-1 -8-7 28.00 -1-03 35-41 51-85 595-7 779-2 -345-1 -612-8 603-2 604-1 29-570 29-600 533-9 457-3 469-2 457-3 254-8 -3-8 28-62 --47 37-76 53-71 593-5 772-6 -363-2 -622-5 618-1 618-7 30-240 30-270 513-8 426-7 447-8 426-7 252-0 -2-2 29-37 --30 40-32 56-09 587-4 765-0 -380-1 -634-9 632-1 632-7 70 INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-BEFF-AD EFF-P M-1 M-2 M'-1 M1-2 X SPAN DEGREE DEGREE DEGREE DEGREE TOTAL PROFILE POL SHOCK TOTAL STATIC -1.33 2.65 19.19 45.52 62.53 2.1080 .4488 .1142 .0271 .0271 .97L0 .0000 .C000 .7900 .4551 .6457 .4533 3.69 19-12 44-04 69-67 2-0300 -4376 -1192 -0293 \*0293 +9710 +0000 • 0000 •7799 .6402 .4602 **.4535** -1.00 3.33 17.58 42.98 57.06 1.9472 .0236 .9784 .0000 .4664 .4529 .4177 .0920 .0236 .8226 .6265 .5821 •0000 -0166 -0164 -9877 -0000 -3.81 1.01 15.99 36.82 51.73 1.7528 -3748 +058<sub>1</sub> .0000 .8c84 .5897 -4611 .4624 -6006 -5.73 -.23 .0120 .9932 .0000 .4776 12.97 31.52 44.81 1.5485 .3441 .0373 .8968 .5460 .4461 •0120 12000 -6215 70 4367 -7,88 -1,77 12,24 30,23 44,25 1,3868 +3205 +0240 V0087 **▼0000 ▼9154 +5110** <del>--5091</del> <del>,6673</del> -8.76 -2.25 14-01 29.03 45.29 1.2867 -8.84 -1.74 15.24 28.99 45.96 1.2554 .0118 .9954 .0000 .4284 .5331 .3128 .0305 .0118 -0000 .8814 .4921 .6934 -- 3363 -- 0615 +0245 \*0845 \*9911 -0000 •0000 .7883 •4773 •4<del>06</del>1 **.5303** -7.81 -1.06 16.03 29.67 46.76 1.2271 .3710 .0930 ·0379 ·0379 ·9875 ·0000 .3000 .7232 .4582 .3780 .5236 NCOR-1 WCOR-1 WC/A-1 TOZ/ POZ/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2

DEGREE DEGREE

11.0 12.0 90.00 90.00

RPM LBM/SEC LBM/SEC TO1 PO1

4790. 131:39 29.61 1:0546 1:1760 86:860 87:28

SOFT

ROTOR

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 65% of Design Speed

	DIA-1	DIA-2	V=1	Y~2	VM-1	VM-2	V0-1	Va-2	8-1	5-2	B!-1	81-2	V!-1	V1-2	V01-1	Vn+-2	U=1	U-2
% SPAN						FT/SEC					DEGREÉ	DEGREE	FT/SEC	FT/SEC I	T/SEC	FT/SEC	FT/SEC	FT/SEC
5		16.030	361.2	736.0	361.2	455.0	.0	578.4	-00		37.23	-28.11	453.6	516.0	-274.4	243.2		
10		16.790	368,1				•0					-24.78			-294.9	207.1	294.9	
15		17.580		689.0			• •			49.58		-19.32			-317.3	156.9		
30		19,910	391.0				•0			44.38					-342.3	20 - 1	382.3	
50		23.090 26.260	403.7 408.6				•0	356.2 2 <b>98.</b> 2		40.00					-464.1		464.1	
70 85		28.610	408.8				.0	275.1		36.32 35.21					-541.3		541.3	
90		29.410	408.2							36.65					-595.0 -613.2			
95		30.180	407.6				.0		.00	38.26			750.9		-630.6		630-6	
<b>5</b> 3	_ •						••									************	00010	00111
	INCS	INCM	DEV			SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P	P02/			OMEGA-B	M-1	M-2	M*-1	M*-2
% SPAN	DEGREE									PROFILE			TOTAL S					7
5	-3.72	3-18	8.86			2.4319					1.2129							
10 15	-2.74 -2.03	3.68 4.23	6.42 7.59			2.2837					1.2194			•0000			.4310	
30	87	4.78	11.20			1.7028	.3998				1.2114			•0000		.6215 .5598	.4996	
50 50	.34	5.31	12.06			1.6895	. \$526			-0117	1,1971	9578		-0000	. 3666	. 4947	.5607	
70	1.67	5.86				1.5344	4902				1.1039			.0000	3709	4481	.6169	
<b>8</b> 5	2.17	5.85	9.72			1.4421	.4306	.0675			1.1771			•0000	.3710	.4239		
90	2.20	5.72	10.76	13.31	18.34	1.4146		.1082			1.1678			.0000	.3705	.4055		
95	2.10	5.47	12.44	10.53	17.48	1.3891	.4665	. 1461			1.1574			.0000	3699	.3853	.6820	
-																	- •	
				WC/A-1		P02/	EFF-AD							•	STA-1 S	TA <del>-</del> 2 S		SLANT-2
		KPM LL		LBMYSEC	101	P01										<u>_</u>	EGREE	DEGREE
		A793.		SOFT	1.0588	1.1923	99. 199	G9 . 68									04 08	OF 00
		41701	123430	21194	110000	111723	72.372	72.07							5•0	6.0	86-05	42.05
STA	TOD																	
	1 4 7 6 7																	
SIA									_									
	DIA-1		V-1	V-2	VM-1	VM-2	V0-1	V0-2	B-1	8-2	B*-1	81-2	V*-1		VO!-1		U=1	U=2
% SPAN	DIA-1	IN 1	TISEC	ET/SEC_	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGREE	DEGREE	DEGREE	DEGREE	FT/SEC	FT/SEC	FT/SEC_	FT/SEC	FT/SEC	FT/SEC
% SPAN 5	DIA-1 IN 17.720	IN 18.580	FT/SEC   680.9	FT/SEC 463.4	FT/SEC 436.8	FT/SEC_1 462.9	522.3	FT/SEC 17.6	50.09	DEGREE 2.16	DEGREE -19.15	DEGREE 38.71	FT/SEC.	593.3	FT/SEC 151.7	FT/SEC -371.0	FT/SEC 370.6	FT/SEC 388.6
% <u>SPAN</u> 5 10	DIA-1 IN 17.720 18.350	18.580 19.110	680.9 677.4	FT/SEC 463.4 472.3	FT/SEC 436.8 444.3	FT/SEC   462.9 471.3	522.3 511.3	FT/SEC 17.6 31.1	50.09 49.01	DEGREE 2.16 3.77	-19.15 -16.01	DEGREE 38.71 38.03	FT/SEC 462.4 462.3	593.3 598.3	FT/SEC 151.7 127.5	-371.0 -368.6	FT/SEC 370.6 383.8	FT/SEC 388.6 399.7
% SPAN 5	DIA-1 IN 17.720 18.350 19.070	IN 18.580	FT/SEC   680.9	FT/SEC 463.4 472.3 479.1	FT/SEC 436.8 444.3 452.1	FT/SEC   462.9 471.3 478.5	522.3 511.3 485.0	FT/SEC 17.6	50.09 49.01 47.00	DEGREE 2.16 3.77 2.87	DEGREE -19.15	DEGREE 38.71 38.03 39.09	FT/SEC 462.4 462.3 460.7	593.3 598.3 616.7	151.7 151.7 127.5 86.2	FT/SEC -371.0	FT/SEC 370.6 383.8 398.9	588.6 399.7 412.9
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740	680.9 687.4 663.2 627.6	FT/SEC 463.4 472.3 479.1 481.5	FT/SEC 436.8 444.3 452.1 473.7	FJ/SEC 462.9 471.3 478.5 481.1	522.3 511.3	FT/SEC 17.6 31.1 24.0	50.09 49.01 47.00 40,95	DEGREE 2.16 3.77	DEGREE -19.15 -16.01 -10.80 3.68	DEGREE 38.71 38.03 39.09 41.96	FT/SEC 462.4 462.3 460.7 475.8	593.3 598.3 598.3 616.7 647.1	151.7 151.7 127.5 86.2	FT/SEC -371.0 -368.6 -388.9 -432.7	FT/SEC 370.6 383.8 398.9 442.2	FT/SEC 388.6 399.7 412.9 451.8
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200	680.9 677.4 663.2 627.6 583.5 547.3	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7	FY/SEC 436.8 444.3 452.1 473.7 471.7 462.7	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7	FT/SEC 522.3 511.3 465.0 411.4 343.2 292.2	FT/SEC 17.6 31.1 24.0 19.1 23.8	50.09 49.01 47.00 40,95 36.02 32.27	2.16 3.77 2.87 2.27 2.91	DEGREE -19.15 -16.01 -10.80 3.68 18.48	DEGREE 38.71 38.03 39.09 41.96 45.66	#7/SEC 462.4 462.3 460.7 475.8 498.4	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6	77/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4	570.6 370.6 383.8 398.9 442.2 501.3 560.3	FT/SEC 388.6 399.7 412.9 451.8 506.2
% <u>SPAN</u> 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	680.9 677.4 663.2 627.6 583.5 547.3	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9	FT/SEC 436.8 444.3 452.1 473.7 471.7 462.7 453.2	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7	FT/SEC 522.3 511.3 465.0 411.4 343.2 292.2 272.5	FT/SEC 17.6 31.1 24.0 19.1 23.8 1.8	50.09 49.01 47.00 40,95 36.02 32.27 31.02	2.16 3.77 2.87 2.27 2.91 .23	0E6REE -19.15 -16.01 -10.80 3.68 18.43 30.05 36.16	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.2 561.4	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0	T/SEC 151.7 127.5 66.2 -30.7 -158.1 -268.1	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4	570.6 370.6 383.8 398.9 442.2 501.3 560.3	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5
% <u>SPAN</u> 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 36.880 28.900	680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9	FT/SEC 436.8 444.3 452.1 473.7 471.7 462.7 453.2 435.2	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 427.8	FT/SEC 522.3 511.3 465.0 411.4 343.2 292.2 272.5 271.1	FI/SEC 17.6 31.1 24.0 19.1 23.8 1.8 -2.3	50.09 49.01 47.00 40,95 36.02 32.27 31.02	DEGREE 2.16 3.77 2.87 2.27 2.91 23 28	DEGREE -19.15 -16.01 -10.80 3.68 18.43 30.05 36.16	DEGREE 38.71 38.03 39.09 41.96 45.66 50.74 53.38	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.2 561.4 557.0	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 750.0	151.7 127.5 66.2 -30.7 -158.1 -268.1 -331.2	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4 -606.7 -615.6	570.6 370.6 383.8 398.9 442.2 501.3 560.3 603.6	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	680.9 677.4 663.2 627.6 583.5 547.3	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9	FT/SEC 436.8 444.3 452.1 473.7 471.7 462.7 453.2 435.2	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 427.8	FT/SEC 522.3 511.3 465.0 411.4 343.2 292.2 272.5 271.1	FT/SEC 17.6 31.1 24.0 19.1 23.8 1.8	50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93	2.16 3.77 2.87 2.27 2.91 .23	DEGREE -19.15 -16.01 -10.80 3.68 18.43 30.05 36.16	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.2 561.4 557.0	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 750.0	T/SEC 151.7 127.5 66.2 -30.7 -158.1 -268.1	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4 -606.7 -615.6	570.6 370.6 383.8 398.9 442.2 501.3 560.3 603.6	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9	FT/SEC 436.8 444.3 452.1 473.7 471.7 462.7 453.2 435.2	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 401.1	FT/SEC 522.3 511.3 485.0 411.4 343.2 292.2 272.5 271.1 269.1	FT/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93 32.99	2.16 3.77 2.87 2.27 2.91 23 28 45	DEGREE -19.15 -16.01 -10.80 -3.68 -18.43 -30.05 -36.16 -38.61 -38.61 -41.24	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 57.45	FT/SEC 962.4 462.3 460.7 475.8 98.4 535.2 561.4 551.3	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 745.6	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4 -628.5	FT/SEC 370.6 383.8 398.9 442.2 501.3 603.6 618.3 632.5	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1 633.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8 494.2 DEV	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 427.8	FT/SEC 522.3 511.3 485.0 411.4 343.2 292.2 272.5 271.1 269.1	FT/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93 32.99	2.16 3.77 2.87 2.27 2.91 23 45 .66	DEGREE -19.15 -16.01 -10.80 3.68 18.48 30.05 36.16 38.61 41.24	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45	FT/SEC 462.4 462.3 460.7 475.8 498.4 551.9 551.9 551.3	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 745.6	151.7 127.5 66.2 -30.7 -158.1 -268.1 -331.2	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4 -606.7 -615.6	570.6 370.6 383.8 398.9 442.2 501.3 560.3 603.6	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8 494.2 DEV	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE	FT/SEC 462.9 471.3 478.5 481.1 67.7 457.7 450.9 427.8 401.1 SOLIBTY	FT/SEC 522.3 511.3 405.0 411.4 343.2 292.2 272.5 271.1 269.1 D-FAC	FT/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3 4.6	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93 32.99 LOSS-P	2.16 3.77 2.87 2.27 2.21 2.23 28 .45 .66 LessP	DEGREE -19.15 -16.01 -10.80 -3.68 18.43 -30.95 -36.16 -38.61 -41.24 -P02/ -P01 S	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 OMEGA-B	FT/SEC 462.4 462.3 460.7 478.4 598.4 557.0 551.3 EFF-AD TOTAL	FT/SEC 593.3 598.3 616.7 647.1 723.6 756.0 750.0 745.6 EFF-P STATIC	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -363.4 M-1	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.7 -560.7 -615.8 -628.5	FT/SEC 370.6 383.8 398.9 442.2 501.3 560.3 618.5 632.5 M*-1	FT/SEC 388.6 399.7 412.9 451.8 506.2 506.2 604.5 619.1 633.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN	18-580 19-110 19-740 21-600 24-200 26-880 28-900 29-600 30-270 INCM DEGREE_	680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8 494.2 DEV	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 401.1 TURN DEGREE 47.93	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEAREE 62.53	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 401.1	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.2 272.5 271.1 269.1 D-FAC	FT/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3 4.6 0MEGA-8	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 32.59 LOSS-P TOTAL .0288	2.16 3.77 2.87 2.27 2.27 2.21 28 .45 .66 LessP Profile	DEGREE -19.15 -16.01 -10.80 -3.68 18.43 -30.95 -36.16 -38.61 -41.24	DEGREE 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 OMEGA-B HOCK	FT/SEC 962.4 962.3 960.6 475.6 498.9 535.2 561.9 551.3 EFF-AD 101AL .0000	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 745.6 EFF-P STAILC .7948	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -363.4 M-1	FT/SEC -371.0 -368.6 -388.9 -432.7 -482.4 -560.4 -606.7 -615.6 -628.5 M-2	FT/SEC 370.6 383.8 398.9 442.2 501.3 560.3 618.5 632.5 M*-1	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 619.1 633.1 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 4.49	680.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8 494.2 DEV DEGREE 18.65	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 427.9 427.9 427.9 427.9 427.9 437.9 45.24	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.56	FT/SEC 462.9 471.3 478.5 481.1 467.7 457.7 457.9 427.8 401.1 SOLIBTY	FT/SEC 522.3 511.3 45.0 411.4 343.2 292.2 272.5 271.5 279.1 D-FAC .4907 .4733	FI/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3 4.6 0MEGA-8	DECREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93 32.99 LOSS-P TOTAL .0288 .0306 .0253	2.16 3.77 2.87 2.27 2.91 .23 28 .45 .45 .45 .66 Less.P	DEGREE -19-15 -16-01 -10-80 -3-68 -18-43 -34-45 -36-16 -38-61 -41-24 -902/ -91-S -97-28	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 57.45 OMEGA-B HOCK	FT/SEC 962.4 962.3 960.6 475.6 498.9 535.2 561.9 551.3 EFF-AD 101AL .0000	FT/SEC 593.3 598.3 616.7 647.1 672.1 723.6 756.0 745.6 EFF-P STATIC .7948 .7875	FT/SEC 151.7 127.5 66.2 -30.7 -158.1 -268.1 -331.2 -37.4 -363.4 M-1 .6127	FT/SEC -371.0 -368.9 -432.7 -482.4 -560.7 -615.6 -628.5 M-2 -4093 -4173 -4238	FT/SEC 370-6 370-6 353-8 353-8 363-5 560-3 673-6 618-5 632-5 M*-1 -4166 -4149	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1 633.1 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA-1 IN	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE (4.9) 5.49	680.9 677.4 663.2 627.6 583.5 527.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 48.13 38.66	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.56 57.06	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 459.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 0MEGA-8 -1214 -1245 -0987 -0579	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 31.93 32.99 LOSS-P TOTAL .0288 .0306 .0253 .0165	DEGREE 2-16 3-77 2-87 2-87 2-91232856 LOSS-PPROFILE 0288 0356 0253 0165	DEGREE -19-15 -16-19-15 -16-80	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 0ME6A-B HOCK .0000 .0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 551.4 551.0 551.3 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 723-6 750-0 745-6 EFF-P STATIC .7948 .7875 .8232 .8775	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -363.4 H-1 .5127 .6071 .5943 .5623	FT/SEC -371.0 -368.9 -388.9 -432.7 -860.7 -606.7 -628.5 M-2 .4093 .4273 .4267	FT/SEC 370.6 383.9 442.2 501.3 569.3 618.3 632.3 M*-1 .4166 .4149	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 604.5 619.1 633.1 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.790 28.860 29.570 30.240 INCS DEGREE 1.23 .91 -1.66 -3.48	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM EGREE 4.49 5.49 5.49 5.24 3.15 2.02	680.9 677.4 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 401.1 TURN DEGREE 47.93 45.24 44.13 38.68 33.12	FT/SEC 436.8 445.1 473.7 473.7 453.2 435.2 435.2 414.5 CAMBER DEBREE 62.53 59.56 57.06 51.72 44.79	FT/SEC 462.9 4718.5 481.1 467.7 459.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.7534 1.5488	522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4528 .4088 .3729	FT/SEC 17.6 31.1 24.0 19.1 23.8 -2.3 3.3 4.6 0MEGA-8 .1214 .1245 .0987 .0584	50.09 49.01 47.00 40.95 36.02 31.93 32.97 505-P TOTAL .0253 .0165 .0165	DEGREE 2-16 3-77 2-87 2-91 2-23284566 LOSS-PPROFILE0288038803880165012880165012880165	DEGREE -19-15 -16-19-15 -10-80 -18-43 -34-86 -16-38-61 -41-24 -9728 -9728 -9738 -9935	DEGREE 38.71 38.09 41.96 45.66 50.74 53.38 55.21 57.45 OMEGA-B HOCK 0000 0000 0000 0000	FT/SEC \$62.\$ \$60.7 \$75.8 \$98.\$ \$51.\$ \$51.\$ \$51.\$ \$51.\$ \$51.\$ \$0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 723-6 756-0 745-6 EFF-P STATIC .7948 .7875 .8232 .8775 .9027	FT/SEC 151.7 127.5 66.2 -30.7 -158.1 -268.1 -331.2 -347.4 -363.4 M-1 .6127 .6071 .5943 .5623	FT/SEC -371.0 -360.6 -380.9 -432.7 -480.7 -606.7 -615.6 -628.5 M-2 -4236 -4236 -4236 -4236 -4236 -4236	FT/SEC 370.6 353.6 398.9 442.2 501.3 560.3 603.5 632.5 M*-1 .4166 .4152 .4272 .4472	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 619.1 633.1 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.23 .91 -1.66 -3.48 -5.26	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM EGREE 5.49 5.24 3.15 2.84	680.9 677.4 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEVERREE 18.65 18.30 16.23 13.70	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 44.13 38.68 33.12	FT/SEC 436.8 445.1 473.7 471.7 453.2 435.2 414.5 CAMBER 0EBREE 62.53 59.56 51.72 44.79	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 450.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.3870	522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .3546	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 0MEGA-8 -1214 -1245 -0579 -0579 -0579 -0579 -0584 -0384	50.09 49.01 47.00 40,95 36.02 31.93 32.97 31.02 31.93 32.99 LOSS-P TOTAL .0288 .0253 .0165 .0165	DEGREE 2-16 3-77 2-87 2-91 28 -45 45 	DEGREE -19-15 -16-19-15 -10-80	DEGREE 38.71 38.09 39.09 41.96 45.86 52.74 53.38 55.21 57.45 0ME6A-B HOCK 0000 0000 0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.5 551.3 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 773-6 750-0 745-6 EFF-P STATIC .7948 .8232 .8775 .8232 .9027 .9076	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -563.4 M-1 .5127 .5071 .5943 .5623 .523	FT/SEC -371.0 -368.6 -388.9 -432.7 -488.4 -560.7 -615.8 -628.5 M-2 -4093 -4238 -4267 -4153 -4267	FT/SEC 370.6 363.8 393.9 442.2 501.3 603.3 603.3 618.5 632.5 M*-1 .4166 .4152 .4149 .4275 .4462	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 619.1 633.1 M*-2 .5241 .5287 .5455 .5735 .5959
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.23 .91 -1.66 -3.48 -5.26 -5.75	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE ( 4.49 5.49 5.49 5.49 5.49	680.9 677.4 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23 13.70 14.76	FT/SEC 463.4 472.3 479.1 481.5 468.4 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 48.13 38.68 33.12 31.30	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.06 51.72 44.79 45.28	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 457.7 457.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.5488 1.54867	FT/SEC 522.3 511.3 405.0 411.4 343.2 292.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .3546 .3489	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 OMEGA-B -1214 -1245 -0987 -0579 -0384 -0341	DECREE 50.09 49.01 47.00 40,95 36.02 31.93 32.99 LOSS-P TOTAL .0288 .0366 .0253 .0165 .0124 .0133	DEGREE 2.16 3.77 2.87 2.87 2.91284566 LOSS-PPROFILE .0288 .0253 .0165 .0124 .0133	DEGREE -19-15 -16-80 -1	DEGREE 38.71 38.03 39.03 41.96 45.86 50.74 53.38 55.21 57.45 0ME6A-B HOCK 0000 0000 0000 0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 551.4 551.3 EFF-AD 101AL .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 723-6 750-0 745-6 EFF-P STATIC .7948 .7948 .8232 .8775 .9027 .9076 .8876	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -363.4 M-1 .6127 .6071 .5943 .5623 .5233 .4721	FT/SEC -371.0 -364.6 -384.9 -432.7 -482.4 -560.7 -615.6 -628.5 M-2 .4093 .4267 .4267 .4267 .4363 .4267	FT/SEC 370.6 363.8 398.9 442.2 501.3 603.6 618.5 632.5 M*-1 .4166 .4166 .4169 .4275 .4275 .4275 .4275	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.5 604.5 619.1 633.1 M*-2 .5287 .5455 .5455 .5455 .5455
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM EGREE 4.49 5.49 5.49 5.49 5.49 5.49	512.6 680.9 677.4 663.2 627.6 583.5 527.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23 13.70 14.76 16.16	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 48.13 38.68 33.12 32.89 31.30 31.49	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 414.5 CAMBER DEBREE 62.53 59.56 57.06 51.72 44.79 44.79 44.28 45.96	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 459.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.3870 1.2867 1.2554	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .3489 .3734	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 0MEGA-8 -1214 -1214 -1214 -0579 -0384 -0341	DEGREE 50.09 49.01 47.00 40,95 36.02 32.27 31.02 32.99 LOSS-P TOTAL .0288 .0306 .0253 .0165 .0124 .0110 .0133 .0241	DEGREE 2-16 3-77 2-87 2-87 2-912866 LOSS-P-PROFILE02880308016501280130013001300130013001300130	DEGREE -19-15 -16-19-15 -19-15	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 0ME6A-B HOCK 0000 0000 0000 0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 551.4 551.0 551.3 EFF-AD 101AL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 723-6 750-0 745-6 EFF-P STATIC .7948 .7875 .8232 .8775 .9027 .9076 .8876	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -258.2 -347.4 -363.4 M-1 .5127 .6071 .5943 .5623 .5223 .4893 .4721 .551	FT/SEC -371.0 -368.9 -388.9 -432.7 -482.4 -606.7 -615.8 -628.5 M-2 -4153. 4267 -4153. 4267 -4153. 4267 -4153.	FT/SEC 370.6 383.9 442.2 501.3 602.5 618.3 632.5 M*-1 .4166 .4149 .4275 .4462 .4768 .4768	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 604.5 619.1 633.1 M*-2 .5241 .5241 .5255 .5735 .5735 .6420 .6420 .6636
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.23 .91 -1.66 -3.48 -5.26 -5.75	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE ( 4.49 5.49 5.49 5.49 5.49	680.9 677.4 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23 13.70 14.76	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 48.13 38.68 33.12 32.89 31.30 31.49	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 414.5 CAMBER DEBREE 62.53 59.56 57.06 51.72 44.79 44.79 44.28 45.96	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 457.7 457.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.5488 1.54867	FT/SEC 522.3 511.3 405.0 411.4 343.2 292.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .3546 .3489	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 0MEGA-8 -1214 -1214 -1214 -0579 -0384 -0341	DEGREE 50.09 49.01 47.00 40,95 36.02 31.93 32.97 31.02 31.93 32.99 LOSS-P TOTAL .0288 .0306 .0253 .0165 .0124 .0110 .0133 .0241	DEGREE 2-16 3-77 2-87 2-87 2-912866 LOSS-P-PROFILE02880308016501280130013001300130013001300130	DEGREE -19-15 -16-19-15 -19-15	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 0ME6A-B HOCK 0000 0000 0000 0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 551.4 551.0 551.3 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 723-6 750-0 745-6 EFF-P STATIC .7948 .7875 .8232 .8775 .9027 .9076 .8476	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -258.2 -347.4 -363.4 M-1 .5127 .6071 .5943 .5623 .893 .4721 .551	FT/SEC -371.0 -368.9 -388.9 -432.7 -482.4 -606.7 -615.8 -628.5 M-2 -4153. 4267 -4153. 4267 -4153. 4267 -4153.	FT/SEC 370.6 383.9 442.2 501.3 602.5 618.3 632.5 M*-1 .4166 .4149 .4275 .4462 .4768 .4768	FT/SEC 388.6 399.7 412.9 451.8 506.2 604.5 604.5 619.1 633.1 M*-2 .5241 .5241 .5255 .5735 .5735 .6420 .6420 .6636
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM EGREE 9.549 5.49 5.49 5.25 2.62	680.9 677.6 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEGREE 18.65 18.30 16.23 13.70 14.76 16.16	FT/SEC 463.4 479.1 481.5 468.4 450.9 427.9 401.1 TURN DEGREE 47.93 44.13 38.68 33.12 32.89 31.30 31.49 32.33	FT/SEC 436.8 4452.1 473.7 452.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.56 51.72 44.79 45.28 45.96 46.75	F7/SEC 462.9 471.3 481.1 467.7 457.7 450.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.3870 1.2867 1.2554 1.2271	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3784 .3489 .3734 .4062	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 OMEGA-8 -1214 -1245 -1	50.09 49.00 40.95 36.02 31.93 32.97 31.02 31.93 32.99 LOSS-P TOTAL .0258 .0306 .0253 .0165 .0124 .0110 .0343	DEGREE 2-16 3-77 2-87 2-91 2-91 28 45 45 	DEGREE -19-15 -16-19-15 -10-80	DEGREE 38.71 38.09 41.96 45.66 50.74 53.38 55.21 57.45 OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.5 551.3 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 756-0 750-0 745-6 EFF-P STAIIC .7948 .7875 .8232 .8775 .9076 .8876 .8173 .7709	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -563.4 M-1 -5127 .6071 .5943 .5623 .523 .523 .523 .523 .523 .523 .523 .5	FT/SEC -371.0 -368.6 -388.9 -432.7 -488.4 -560.7 -615.6 -628.5 M-2 -4093 -4238 -4267 -4151 -3998 -3786 -3598	FT/SEC 370.6 363.8 393.9 442.2 501.3 632.5 618.5 632.5 M*-1 .4166 .4152 .4149 .4275 .4149 .4275 .4149 .4275 .4449 .4275 .4449	FT/SEC 388.6 399.7 412.9 451.8 566.2 604.5 619.1 633.1 M*-2 .5241 .5455 .5455 .5455 .5455 .6420 .6703 .6636 .6583
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM EGREE 4.49 5.24 3.15 2.02 2.84 .75 1.65 2.57	580.9 677.4 663.2 627.6 583.5 547.3 528.8 512.8 494.2 DEV DEGREE 18.65 19.73 13.70 14.76 16.16 16.99	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.24 48.13 38.68 33.12 32.89 31.30 31.49	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.06 51.72 44.79 45.28 45.96 46.75	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 459.9 427.8 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.3870 1.2867 1.2554	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .3489 .3734	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 OMEGA-8 -1214 -1245 -1	50.09 49.00 40.95 36.02 31.93 32.97 31.02 31.93 32.99 LOSS-P TOTAL .0258 .0306 .0253 .0165 .0124 .0110 .0343	DEGREE 2-16 3-77 2-87 2-91 2-91 28 45 45 	DEGREE -19-15 -16-19-15 -10-80	DEGREE 38.71 38.09 41.96 45.66 50.74 53.38 55.21 57.45 OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.5 551.3 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 756-0 750-0 745-6 EFF-P STAIIC .7948 .7875 .8232 .8775 .9076 .8876 .8173 .7709	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -563.4 M-1 -5127 .6071 .5943 .5623 .523 .523 .523 .523 .523 .523 .523 .5	FT/SEC -371-0 -368-6 -388-9 -432-7 -488-4 -560-7 -606-7 -628-5 M-2 -4093 -4173 -4267 -4267 -4267 -4353	FT/SEC 370.6 363.8 393.9 442.2 501.3 632.5 618.5 632.5 M*-1 .4166 .4152 .4149 .4275 .4149 .4275 .4149 .4275 .4449 .4275 .4449	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1 633.1 M*-2 .5241 .5247 .5455 .5735 .5455 .6703 .6636 .6583 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM EGREE 4.49 5.24 3.15 2.02 2.84 .75 1.65 2.57	580.9 677.4 663.2 627.6 583.5 528.8 512.8 494.2 DEV DEGREE 18.65 19.72 18.30 16.23 13.70 14.76 16.16 16.99	FT/SEC 463.4 472.3 479.1 481.5 468.4 457.7 450.9 427.9 401.1 TURN DEGREE 47.93 45.23 38.68 33.12 32.84 31.30 31.49 32.33	FT/SEC 436.8 444.3 452.1 473.7 471.7 453.2 435.2 414.5 CAMBER DEBREE 62.53 59.06 51.72 44.79 45.28 45.96 46.75	F7/SEC 462.9 471.3 478.5 481.1 467.7 457.7 457.7 459.9 401.1 SOLIBTY 2.1082 2.0305 1.9478 1.7534 1.5488 1.5488 1.2867 1.2554 1.2271	FT/SEC 522.3 511.3 405.0 411.4 343.2 272.5 271.1 269.1 D-FAC .4907 .4733 .4525 .4088 .3729 .33489 .3734 .4062 EFF-AD	FT/SEC 17-6 31-1 24-0 19-1 23-8 -2-3 3-3 4-6 OMEGA-B -1214 -1245 -0579 -0384 -0406 -0841 -0606	50.09 49.00 40.95 36.02 31.93 32.97 31.02 31.93 32.99 LOSS-P TOTAL .0258 .0306 .0253 .0165 .0124 .0110 .0343	DEGREE 2-16 3-77 2-87 2-91 2-91 28 45 45 	DEGREE -19-15 -16-19-15 -10-80	DEGREE 38.71 38.03 39.09 41.96 45.86 50.74 53.38 55.21 57.45 0ME6A-B HOCK 0000 0000 0000 0000	FT/SEC 462.4 462.3 460.7 475.8 498.4 535.5 551.3 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 593-3 598-3 616-7 647-1 672-1 756-0 750-0 745-6 EFF-P STAIIC .7948 .7875 .8232 .8775 .9076 .8876 .8173 .7709	FT/SEC 151.7 127.5 86.2 -30.7 -158.1 -268.1 -331.2 -347.4 -563.4 M-1 -5127 .6071 .5943 .5623 .523 .523 .523 .523 .523 .523 .523 .5	FT/SEC -371-0 -368-6 -388-9 -432-7 -488-4 -560-7 -606-7 -628-5 M-2 -4093 -4173 -4267 -4267 -4267 -4353	FT/SEC 370.6 363.8 393.9 442.2 501.3 673.6 618.3 632.3 M*-1 .4166 .4152 .4149 .4275 .4462 .4778 .5008 .4962 .4898	FT/SEC 388.6 399.7 412.9 451.8 506.2 562.2 604.5 619.1 633.1 M*-2 .5241 .5247 .5455 .5735 .5455 .6703 .6636 .6583 SLANT-2

Blade-Element and Overall Performance with Stator-Hub Slit Suction

65%	Ωf	De	sion	Speed	
0070	O1	De	PIRI	Speed	

		DIA-2	v <u>=1</u>	v-2	VM-1	VM-2	vo-:		B-1	8-2	B • - 1	£*=2	V*-1	V*-2	V0'-1	V0 1 -2	U-1	U-2
% SPAN		IN.	FT/SEC	FT <u>∤SE</u> €⊣	FT/SEC		FT/bEC	<del>FT/SEC  </del>									FT/SEC	FT/SEC
5			335.3				• 0				39.31	-27.88	433.3	479.3	-274.5	224.2	274.5	335.4
10		16.790					•0		.00	52.96		-24.06		460.5			295.0	351+3
15			347.9		347.9		• 0		•00	50.29		-18.27			-317.4			
30		19-910				409.2	• <del>û</del>		.00	46.64		-2.36		411.2				416.6
50			375.3			394.4	• 0		- 66			17.07		414.0				
70			<del></del>				•0					3 <del>2 • 34</del>						
85			397.4				• G	_	ن ن ۰	38.96		40.72						
90			381.1				• 0		• 00	40.76		44.23						615.3
95	30.150	30.160	380.6	423.3	380.6	310.0	• C	288.2	•30	42.92	58.89	47.90	736.7	462.5	-630.8	-343.2	630.8	631.4
	74105	**!**																
% SPAN	INCS	INCM	DEV					OMEGY-9				EFF-P			M-1	M-2	M'-1	M1-2
	DEGREE	DEGNEE	DEGREE								-	TOTAL 1						
5	-1.65	5.26				2.4326					1.2080		9206	•0000	3036			
10	-,63	6.00				2.2845			•0214		1.5725		.9422	<b>+000</b> 0	.3099	.616		
15	•11	6.38	_	• -		2.1553			.,158		1.2153		.9573	+0000	-3157	•5932		
30	1.27	6.94				1.9038	.4451		*0111			.9687	•9678	-0000	-32AB	.5346	•4793	.3681
50	2.40	7.38				1.6902			74نن.	.007#	1.2043	.9749	.9742	-6000	•3450	.4768	.5419	.3669
70	3,59					1.5347			#0102	10102	1.1956	•9568		<del>-0000</del>	<del>- ₹345</del> 3			.3959
85	4.00	7.69				1.4422			• -168			.9176	.9154	-8000	• 3456			
90	4.61	7.53				1.4148			• <sub>U</sub> 266	10266	1.1824	.8625	.8590	*8000	• 3453	.3917	,6549	-4142
95	3.67	7.25	13.75	10.99	17.48	1.3891	•5131	•1449	• ა35ე	.0350	1.1740	.8071	.8025	-0000	.3448	. 3736	.6677	-4082
					_													
			ACOK-7			P02/	EFF-AD	eff-p						•	TA-1 5	TA-2 5	LANT-1	SLANT-2
		#PH L	<del>BM/SEG  </del>		<u> 101</u>	<del>- PO1</del>	<del></del>						,			E	EGREE	DEGREE
				SGFT														
		4795,	116.20	26.20	1.0570	1,1992	93.599	93, <del>72</del>							5.0	6.0	86.05	95.02
C/T/A	mo n																	
SIA	TOR																	
SIA		5.4.0			1444 .		V0-1	WA-0		s-s	01			ua- <b>a</b>	<b>40.</b>	¥00		
	DIA-1	DIA-2		V=2	VN-1	VM=2	V0-1	V0=2	B=1	6=2 	B+=1		V!-1		V0!=1		U=1 ET/55e	J=2 57/550
% SPAN	DIA-1	1N	FT/SEC	FT/SEC	FT/SEC	FT/SEC !	FT/SEC	FT/SEC	<del>)EĞREÇ (</del>	<del>JEĞRĒE (</del>	DE GREE	DEĞRE: I	TÝSEČ 1	T/SEC	*†/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17.720	18.580	FT/SEC - 643-1	FT/SEC	<del>57/SEC</del> 397.6	FT/SEC   412.8	505.5	<del>FT/S€€  </del> 7.9	51.81	DEĞRĒE ( 1.07	<del>-18.7</del> 2	<del>0EĞRE≟  </del> 42•69	<del>1/\$66 (</del> 419.8	7/SEC   561.8	134.7	-380.9	<del>FT/SEC</del> 370.7	FT/SEC 388.7
% SPAN 5 10	DIA-1 IN 17.720 18.350	18.580 19.110	FT/SEC 643-1 639-9	FT/SEC 413-1 <del>422-6</del>	397.6 406.6	#T/SEC   412.8 421.3	505.5 494.0	FT/SEC   7.9 32.3	51.81 50.54	1.07 4.36	-18.72 -15.15	<del>DEĞRE<u>:</u> 1</del> 42.69 41.10	<del>T/SEC 1</del> 419.8 421.4	561.8 559.1	134.7 139.7 110.1	-380.9 -367.5	FT/SEC 370.7 343.9	FT/SEC 388.7 399.8
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	18.580 19.110 19.740	FT/SEC 643.1 639.9 627.7	FT/SEC 413.1 422.6 429.7	397.6 406.6 417.7	#12.8 412.8 421.3 428.3	505.5 494.0 468.4	<del>FT/SEC  </del> 7.9 32.3 34.3	51.81 50.54 48.27	1.07 4.36 4.58	-18.72 -15.15 -9.45	<del>DEĞRE<u>:</u> 1</del> 42.69 41.10 41.48	<del>T/SEC (</del> 419.8 421.4 423.9	561.8 559.1 571.8	134.7 130.1 110.1 69.4	-380.9 -367.5 -378.7	FT/SEC 370.7 343.9 399.0	FT/SEC 388.7 399.8 413.0
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	643.1 639.9 627.7 593.6	FT/SEC 413.1 <del>422.5</del> 429.7 438.6	397.6 406.6 417.7 430.4	#12.8 #21.3 #26.3 #37.9	505.5 494.0 468.4 408.6	FT/SEC   7.9 32.3 34.3 22.1	51.81 50.54 48.27 43.49	1 • 07 4 • 36 4 • 58 2 • 89	-18.72 -18.72 -15.15 -9.45 4.43	DEĞRE <u>2</u> 1 42.69 41.10 41.48 44.45	<del>T/SEC (</del> 419.8 421.4 423.9 432.7	561.8 559.1 571.8 613.7	134.7 134.7 110.1 69.4 -33.7	-380.9 -367.5 -378.7 -429.6	#T/SEC 370.7 383.9 399.0	FT/SEC 388.7 399.8 413.0 451.9
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	643.1 639.9 627.7 593.6 553.6	FT/SEC 413-1 422-5 429-7 438-5 436-2	397.6 406.6 417.7 430.4 436.7	#12.8 #21.3 #26.3 #37.9 #35.5	505.5 494.0 468.4 408.6 348.2	FT/SEC   7.9 32.3 34.3 22.1 24.3	51.81 51.81 50.54 48.27 43.49 38.55	2-6REE ( 1-07 4-36 4-58 2-89 3-19	=18.72 =15.15 =15.15 =9.45 4.43 19.29	DEĞREZ 1 42.69 41.10 41.48 44.45 47.88	T/SEC ( 419.8 421.4 423.9 432.7 463.6	561.8 559.1 571.8 613.7 649.7	134.7 134.7 110.1 69.4 -33.7 -153.3	-380 · 9 -367 · 9 -378 · 1 -429 · 8 -482 · (	#T/SEC 370.7 383.9 399.0 442.3	FT/SEC 388.7 399.8 413.0 451.9 506.3
% SPAN 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200	643-1 643-1 639-9 627-7 593-6 553-6	FT/SEC 413-1 422-6 429-7 438-6 436-2	77/5EC 397.6 406.6 417.7 430.4 436.7	#12.8 #21.3 #28.3 #37.9 #35.5	505.5 494.0 468.4 408.6 348.2	FT/SEC 7.9 32.3 34.3 22.1 24.3	51.81 51.54 50.54 48.27 43.49 38.55	1.07 4.36 4.58 2.89 3.19	-18.72 -15.15 -9.45 -9.29 -36.69	DEĞREZ   42.69 41.10 41.48 44.45 47.88	**************************************	561.8 559.1 571.8 613.7 649.7	134.7 110.1 69.4 -33.7 -153.3	-380.5 -367.5 -367.5 -378.1 -429.6 -482.(	FT/SEC 370.7 343.9 399.0 442.3 501.5	57/SEC 388.7 399.8 413.0 451.9 506.3
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.606 24.200 26.880 28.900	643-1 643-1 639-9 627-7 593-6 553-6 527-3	FT/SEC 413-1 422-6 429-7 438-6 436-2 430-0 421-9	397.6 406.6 417.7 430.4 436.7 430.3	#12-8 #21-3 #28-3 #37-9 #35-5 #29-8	505.5 494.0 468.4 408.6 348.2 364.7 287.2	FT/SEC 7.9 32.3 34.3 22.1 24.3 13.3 8.4	51.81 51.81 50.54 48.27 43.49 38.55 35.29 34.35	1.07 4.36 4.58 2.89 3.19 1.77	-18.72 -18.75 -15.15 -9.45 4.43 19.29 -36.69	0EGRE2   42.69 +1.10 41.48 +4.45 47.88 -51.94	419.8 421.4 423.9 432.7 463.6 501.0 526.3	561.8 559.1 571.8 613.7 649.7 730.5	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6	-380.5 -367.5 -367.5 -378.7 -429.6 -482.6 -549.1	FT/SEC 370.7 343.9 399.0 442.3 501.5 603.6	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.070 21:148 23.970 26.790 28.860 29.570	18-580 19-110 19-740 21-600 24-200 26-860 28-900 29-600	643.1 639.9 627.7 593.6 553.6 527.3 509.1	#13.1 #22.6 #29.7 #38.5 #36.2 #30.0 #21.9	397.6 406.6 417.7 430.4 436.7 420.3 420.3	#12.8 #21.3 #28.3 #37.9 #35.5 #29.8 #21.8	505-5 494-0 468-4 408-6 348-2 304-7 287-2	FT/SEC 7.9 32.3 34.3 22.1 24.3 13.3 8.4	51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51	1.07 4.36 4.58 2.89 3.19 1.77 1.14	-18-72 -15-15 -9-45 4-43 19-29 36-69 36-99	0EGRE2   42.69 41.10 41.48 44.45 47.88 51.94 54.72	419.8 421.4 423.9 432.7 463.6 501.0 526.3	7/SEC   561.8 559.1 571.8 613.7 649.7 730.5 727.8	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6	-380.5 -367.5 -367.5 -378.5 -429.6 -482.6 -549.5 -596.3	FT/SEC 370.7 383.9 399.0 442.3 501.5 603.6 616.7	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21:148 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.606 24.200 26.880 28.900	643.1 639.9 627.7 593.6 553.6 527.3 509.1	#13.1 #22.6 #29.7 #38.5 #36.2 #30.0 #21.9	397.6 406.6 417.7 430.4 436.7 420.3 420.3	#12-8 #21-3 #28-3 #37-9 #35-5 #29-8	505.5 494.0 468.4 408.6 348.2 364.7 287.2	FT/SEC 7.9 32.3 34.3 22.1 24.3 13.3 8.4	51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51	1.07 4.36 4.58 2.89 3.19 1.77	-18-72 -15-15 -9-45 4-43 19-29 36-69 36-99	0EGRE2   42.69 41.10 41.48 44.45 47.88 51.94 54.72	419.8 421.4 423.9 432.7 463.6 501.0 526.3	561.8 559.1 571.8 613.7 649.7 730.5	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6	-380.5 -367.5 -367.5 -378.5 -429.6 -482.6 -549.5 -596.3	FT/SEC 370.7 383.9 399.0 442.3 501.5 603.6 616.7	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.070 23.970 26.790 26.860 £9.570 30.240	18.580 19.110 19.740 21.600 26.880 28.900 29.600	FT/SEC 643-1 639-9 627-7 593-6 553-6 527-3 509-1 478-1	FT/SEC 413-1 422-5 429-7 438-5 436-2 430-0 421-9 401-0 379-1	397.6 496.6 417.7 430.4 436.7 430.3 420.3 402.5 381.9	#12.8 #21.3 #25.3 #37.9 #35.5 #29.8 #21.8 #00.8	505.5 494.0 468.4 408.6 348.2 304.7 287.0 287.0	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9	51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98	1.07 4.34 4.58 2.89 3.19 1.77 1.14 1.70	-18.72 -15.15 -9.45 4.43 19.29 36.69 36.99 39.50	42.69 41.10 41.48 44.45 47.88 51.94 54.72 56.58 58.62	419.8 421.4 423.9 432.7 463.6 501.0 526.3 521.7	7561.8 559.1 571.8 613.7 649.7 730.5 727.6	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6 -331.6	-380.9 -367.9 -367.9 -378.7 -429.6 -482.0 -549.1 -596.3 -607.4	77/5EC 370-7 383-9 7 399-0 8 442-3 501-5 1 560-5 603-8 618-7 632-7	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7 619.3 633.3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 28.860 £7.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.800 28.900 29.600 30.270	FT/SEG 643-1 639-9 627-7 593-6 553-6 527-3 509-1 494-4 478-1	#13-1 #22-6 #29-7 #36-2 #36-2 #30-0 #21-9 #01-0 379-1	397.6 496.6 417.7 430.4 436.7 420.3 402.5 381.9	#12.8 #21.3 #28.3 #37.9 #35.5 #29.8 #21.8	505.5 494.0 468.4 408.6 348.2 304.7 287.0 287.0	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9	51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98 LOSS-P	1.07 4.34 4.58 2.89 3.19 1.77 1.14 1.70 1.84	-18.72 -15.15 -9.45 4.43 19.29 36.69 36.99 39.50 42.10	42.69 41.10 41.48 44.45 47.88 51.94 54.72 56.58 58.62 OMEGA-89	419.8 421.4 423.9 432.7 463.6 501.0 526.3 521.7 514.2	561.8 559.1 571.8 613.7 649.7 730.5 727.6 EFF-P	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6	-380.5 -367.5 -367.5 -378.5 -429.6 -482.6 -549.5 -596.3	FT/SEC 370.7 383.9 399.0 442.3 501.5 603.6 616.7	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7
% SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.790 26.860 59.570 30.240 INCS	18-580 19-110 19-740 21-600 24-200 26-860 28-900 29-000 30-270 INCN	FT/SEG 643-1 639-9 627-7 593-6 527-3 509-1 494-4 478-1 DEV	#13-1 #22-5 #29-7 438-5 #36-2 #30-0 #21-9 #01-0 379-1 TURN DEGREE	397.6 397.6 406.6 417.7 436.7 420.3 402.5 381.9 CAMBER DEGREE	#12.8 #21.3 #28.3 #37.9 #35.5 #29.8 #20.8 #00.8 378.9	505.5 494.0 468.4 408.6 348.2 304.7 287.0 287.6	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9 12.2 ONEGA-B	51.81 51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98 LOSS-P	1.07 4.34 4.58 2.89 3.19 1.77 1.14 1.70 1.84	-18.72 -15.15 -9.45 -9.45 -9.29 	42.69 41.48 41.48 44.45 47.88 51.94 54.72 56.58 58.62 OMEGA-BS	419.8 421.4 423.9 432.7 463.6 501.0 526.3 521.7 514.2	561.8 559.1 571.8 649.7 649.7 730.5 727.8 727.6 EFF-P	134.7 110.1 69.4 -33.7 -153.3 -255.8 -316.6 -331.6 -345.1	-380.5 -367.5 -378.7 -429.6 -482.6 -549.1 -596.3 -621.1	FT/SEC 370-7 343-9 399-0 442-3 501-5 603-6 603-6 603-7 632-7	FT/SEC 388.7 399.8 413.0 451.9 506.3 562.4 604.7 619.3 633.3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.149 23.970 26.799 28.860 £9.570 30.240 INCS	18-580 19-110 19-740 21-600 24-200 26-860 28-900 30-270 INCN 0EGREE 6-19	FT/SEC 643-1 627-7 593-6 553-6 509-1 509-1 478-1 DEV DEGREE	#13-1 #22-6 #29-7 #36-2 #36-2 #30-9 #01-0 379-1 TURN BEGREE 50-74	397.6 397.6 406.6 417.7 430.4 420.3 402.5 381.9 CAMBER DEGREE 62.53	#12.8 #21.3 #28.3 #27.9 #37.9 #35.5 #29.8 #21.8 #00.8 378.9 SOLICTY	505.5 494.0 468.4 408.6 348.2 287.2 287.0 287.6	7.9 32.3 34.3 82.1 24.3 13.3 8.4 11.9 12.2 0MEGA-B	51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98 LOSS-P	1.07 4.34 4.58 2.89 3.19 1.77 1.14 1.70 1.84 LOSS-R	-18.72 -18.72 -15.15 -9.45 -9.45 -9.29 -36.69 -36.69 -36.99 -39.50 -9.50 -9.742	026822 42.69 41.10 41.48 47.88 51.94 54.72 56.58 58.62 0MEGA-BS	#19.8 #21.4 #23.9 #32.7 #63.6 501.0 526.3 521.7 514.2 FF-AD	561.8 559.1 571.8 613.7 649.7 730.5 727.6 727.6 EFF-P 57ATIC .8005	134.7 110.1 69.4 -33.7 -153.3 -265.8 -316.6 -331.6 -345.1 M-1	-380 -5 -367 -5 -367 -5 -378 -7 -482 -6 -549 -1 -596 -3 -607 -4 -621 -1 M-2	FT/SEC 370-7 393-9 7 399-0 8 442-3 501-5 603-8 618-7 632-3 M*-1	77/SEC 388-7 399-8 413-0 451-9 506-3 504-7 604-7 633-3 M*-2
% SPAN 5 10 15 30 70 85 90 95 95 10	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 28.860 £9.570 30.240 INCS DEGREE 2.466	18-580 19-110 19-740 21-600 24-200 26-880 28-900 29-600 30-270 INCN 056855 6-92	FT/SEC 643-1 639-9-9 527-7 593-6 527-3 509-1 478-1 DEV DEV DESTES 20-32	#13-1 #22-6 #29-7 #36-2 #36-2 #30-0 #21-9 #01-0 TURN DEGREE 50-74	397.6 496.6 417.7 436.7 430.3 420.3 402.5 CAMBER DEGREE 52.64	#12.8 #21.3 #26.3 #26.3 #37.9 #35.5 #29.8 #21.8 #378.9 SOLICTY	505.5 494.6 408.6 348.2 304.7 287.2 287.0 287.0 287.0	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9 12.2 OMEGA-B	51.81 51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98 LOSS-P TOTALF •0328	1.07 4.34 4.58 2.89 3.19 1.77 1.14 1.70 1.84 LOSS-B PROFILE .0328	-18.72 -18.15.15 -9.45 -9.45 -9.49 -36.69 -36.99 -39.50 -42.10 -901-52 -9732	#2.69 #1.10 #1.48 #7.88 #51.94 #54.72 #56.56 ################################	419.8 421.4 423.7 463.6 501.0 526.3 521.7 514.6 FF-AD 101AL 10000	561.8 561.8 559.1 571.8 613.7 649.7 730.5 727.6 EFF-P TATIC .8005 .7826	134.7 110.1 169.4 -33.7 -153.3 -265.8 -316.6 -345.1 M-1	-380 -9 -367 -9 -378 -1 -429 -1 -482 -( -549 -1 -596 -3 -607 -4 -621 -1 M-2	77.5EC 370.7 399.0 349.0 349.0 501.5 560.6 603.6 632.7 632.7 M·-1	FY/SEC 388.7 388.7 493.6 451.9 506.3 562.4 604.7 619.3 633.3 M*=2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.148 23.970 26.796 28.570 30.240 INCS UEGRLE 2.22 2.26 2.26	18.580 19.110 19.740 21.600 26.880 29.600 30.270 INCN 066866 6.192 6.59	FT/SEC 643-1 627-7 593-6 553-6 527-3 509-1 494-4 478-1 DEV DEGREE 20-32	#13-1 #22-5 429-7 436-2 #36-2 #30-2 #01-0 379-1 TURN DEGREE 50-74 40-16 43-69	397.6 497.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 52.53 59.65 57.03	#12.8 #21.8 #21.3 #37.9 #35.5 #29.6 #21.8 #00.8 378.9 SOLICTY 2.1(84 2.0314 1.9494	505.5 494.0 408.6 348.2 287.0 287.6 U-FAC .5365 .4893	7.9 7.9 32.3 34.3 22.1 24.3 13.3 13.3 11.9 12.2 OMEGA-B .1274 .1337 .1155	51.81 51.81 50.54 48.27 43.49 38.55 35.29 34.35 35.51 36.98 LOSS-P 107ALF •0328 •0295	1.07 4.36 4.58 2.89 3.19 1.77 1.14 1.70 1.84 LOSS-R .0302 .0328	-18.72 -18.75 -9.45 -9.45 4.43 19.29 36.69 39.50 42.10 PO2/ -9742 -9776	42.69 41.48 44.45 47.88 51.94 54.72 56.58 58.62 OMEGA-B: HOCK	419.8 421.4 423.9 432.7 463.6 506.3 526.3 521.7 514.6 (FF-AD 10000 10000	730-5 727-6 730-5 727-6 727-6 727-6 FFF-P 574TIC -8005 -7856 -8084	134.7 134.7 110.1 69.4 -33.7 -153.3 -365.8 -31.6 -345.1 M-1 .5767 .5764	-380.5 -387.5 -378.1 -429.4 -482.6 -549.7 -596.3 -607.4 -621.1 M-2	FT/SEC 370-7 399-0 442-3 501-5 603-8 603-8 610-7 632-7 M*-1 .3772 .3806	FY/SEC 388.7 393.6 451.9 506.3 506.3 604.7 619.3 633.3 M*=2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.148 23.970 26.790 26.860 59.570 30.240 INCS 52.22 2.26 2.26 2.26	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCN 066REE 6.19 6.59 5.74	FT/SEC 643-1 627-7 593-6 553-6 527-3 599-1 494-4 478-1 DEV DEGREE 20-32 20-32 16-84	#13-1 #22-6 #29-7 #36-2 #36-2 #30-9 #01-0 379-1 TURN DEGREE 50-74 #6-16	57.65 397.6 406.6 417.7 430.4 436.7 420.3 420.3 591.9 CAMBER 62.53 59.54 57.63 51.69	#12.8 #21.3 #37.9 #35.5 #29.8 #21.8 #00.8 378.9 SOLICTY 2.1684 1.9494 1.7549	505.5 494.0 408.6 348.2 307.2 287.0 287.6 L-FAC .5365 .6130 .4443	7.9 32.3 34.3 22.1 24.3 13.3 13.3 13.9 12.2 0MEGA-B .1274 .1337 .1155	50.54 51.81 50.54 48.27 43.49 38.55 35.29 36.98 LOSS-P TOTALF •0302 •0328 •0180	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-8 WOFILE .0392 .0295	-18-72 -18-72 -19-15 -9-15 -9-15 4-43 19-29 36-99 36-99 39-50 42-10 PC2/ PO1 5 -9742 -9772 -9889	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.94 \$54.72 \$6.58 \$8.62  OMEGA=89 #0000 *0000	#19.8 #21.9 #23.9 #32.7 #63.6 526.3 521.7 514.2 FF-AD FOTAL (10000 +00000 +00000	561.8 559.1 571.8 613.7 649.7 649.4 730.5 727.8 727.6 EFF-P TATIC .8005 .7806 .8085	134.7 110.1 69.4 -33.7 -153.3 -255.8 -316.6 -331.6 -345.1 N-1 .5767 .5724 .5306	-360.5 -367.5 -378.1 -429.6 -482.6 -549.1 -596.3 -607.4 -621.1 M-2 .3646 .3721 .3872	FT/SEC 370-7 399-0 442-3 501-5 603-8 610-7 632-3 M-1 3772 3806 38074	FT/SEC 388-7 399-8 451-9 506-3 506-3 604-7 619-3 633-3 M*-2 .4959 .5045 .5423
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 50 50 50 50 50 50 50 50 50 50 50 50	DIA-1 17.720 18.356 19.070 21.140 23.970 26.799 28.860 £9.570 30.240 INCS begree 2.22 2.66 2.26 2.26	18.580 19.110 19.110 21.740 24.200 26.880 28.900 29.600 30.270 INCN 0EGREE 6.19 6.92 6.59 5.74	FT/SEC 643-1 639-9 627-7 553-6 553-6 529-3 509-1 478-1 DEV DEGREE 20-32 20-00 16-84 13-96	#13-1 #22-6 #22-7 #36-6 #36-2 #36-2 #36-2 #36-9 #01-0 379-1 TURN DEGREE #43-69 #0-60	FT/SEC 397.6 406.6 417.7 430.4 430.3 402.5 381.9 CAMBER 62.53 59.54 57.03 51.09	#21.8 #21.8 #21.8 #37.9 #35.5 #21.8 #00.8 378.9 SOLIDTY 2.1684 2.1684 1.75495	505.5 498.6 408.6 408.6 348.2 287.2 287.0 287.6 L-FAC .5365 .404.9 .404.9	7.9 7.9 32.3 34.3 22.1 24.3 3.8.4 11.9 12.2 0NEGA-B .1274 .1337 .1155 .0632	51.81 50.54 48.27 43.49 38.55 35.51 36.98 LOSS-P 707-L 0328 0228 0218 02180	1.07 1.36 2.89 3.19 1.77 1.14 1.70 1.84 LOSS_B **ROFILE* .0328 .04290 .0143	-18.72 -18.72 -9.45 4.43 19.29 36.99 36.99 32.50 42.10 PO2/ PO1/ 9732 9776 9869 9931	954-72 96-58 54-72 56-58 58-62 OMEGA-85 HORO -0100 -0100 -0100	17.565 419.8 421.9 423.9 432.7 463.6 526.3 521.7 514.2 FF-AL -0000 -0000 -0000	561.8 551.8 5571.8 413.7 649.7 730.5 727.8 727.6 EFF-P ***********************************	134.7 110.1 69.4 -33.7 -153.3 -316.6 -345.1 M-1 .5767 .5724 .53614 .4991	FT/SEC -380.5 -367.6 -378.7 -429.6 -482.0 -549.7 -596.3 -621.1 M-2 .3646 .3725 .3727 .3856	FT/SEC 370-7 399-0 442-3 501-3 603-8 610-7 632-3 M-1 0 .3772 .3788 .3874 .3874 .3874	F7/SEC 388.7 389.8 413.0 451.9 506.3 506.3 604.7 619.3 633.3 M*-2 .4959 .4928 .5045 .5423 .5746
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ 10 15 30 50 70 70 55 90 95	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 26.790 INCS UEGREE 2.22 2.46 2.96992	18.580 19.110 19.110 21.600 24.200 26.880 28.900 29.600 30.270 INCM 056855 6.19 6.59 5.74	FT/SEC 643-1 643-1 627-7 593-6 553-6 509-1 494-4 478-1 DEV DEVREE 20-00 14-57	#13-16 #22-6 #22-7 #36-2 #36-2 #36-2 #30-0 #01-0 379-1 TURN DEGREE #0-16 #3-69 #0-69	57.55 397.6 406.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 62.53 59.54 57.03 51.69 44.23	#21.8 #21.8 #21.8 #21.8 #37.9 #35.5 #21.8 #00.8 378.9 SOLIDTY 2.1084 1.9494 1.75495 1.3495	505.5 494.0 408.6 408.6 348.2 287.2 287.0 287.6 L-FAC .5365 .4493 .4049	7.9 32.3 34.3 22.1 24.3 3.3 11.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0377	50.54.55 50.54.55 50.54.55 36.59 34.35 35.51 36.98 LOSS-P •0328 •0295 •0143 •0143	1.07 4.58 2.89 3.19 1.70 1.84 LOSS-B 	-18-72 -18-17 -19-45 -9-	0EGRE 42.69 42.69 41.48 44.45 47.88 51.94 54.72 56.58 58.62  OMEGA-BS HOCK 0000 0000 0000	17/SEE 421-8 421-9-8 421-9-9 432-7 463-6 526-3 521-7 514-2 FF-AD 0000 0000 0000 0000	7/SEC   561.8   559.1   571.8   571.8   649.7   730.5   727.6   727.6   FF-P   7471C   .8056   .8751   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959   .8959	134.7 134.7 110.4 -33.7 -153.3 -255.8 -316.6 -331.6 -345.1 M-1 .5767 .5724 .5306 .4702	FT/SEC -380.5 -367.6 -378.1 -429.6 -482.6 -596.3 -607.4 -621.1 M-2 .364( .372) .3873 .3873 .3875	FT/SEC 370-7 399-0 442-3 5010-8 5010-8 603-8 610-7 632-7 M*-1 .3772 .3786 .3806 .4136 .4136	FY/SEC 388.7 388.7 451.9 451.9 506.3 504.7 619.3 633.3 M*=2 .4959 .4928 .5045 .5746 .6169
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.570 30.240 INCS UEGRLE 2.22 2.66 2.26 -94 92 -2.23	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.000 30.270 INCN 0EGREE 6.59 5.74 4.57	FT/SEC 643-1 627-7 593-6 527-3 509-1 494-4 478-1 DEV DEGREE 20-10 16-84 13-96 16-17	#13-1 #22-5 #29-7 436-2 #36-2 #30-9 #01-0 379-1 TURN DEGREE #0-16 #0-69 #0-69 *5-35	57./SEC 397.6 406.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 62.53 59.54 57.03 51.69 44.76 45.23	#21.8 #21.3 #37.9 #35.5 #29.6 #00.8 378.9 SOLICTY 2.1084 2.0314 1.9494 1.75495 1.5868	505.5 494.0 408.6 348.2 287.2 287.6 U-FAC .5365 .4193 .4049 .3838	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0443	50.54 51.81 50.84 48.27 43.49 38.55 35.29 35.51 36.98 LOSS-P 1074LF 10302 10302 1043 1043 1043 1043 1043 1048	1.07 4.36 4.58 2.69 3.19 1.77 1.16 4.57 1.16 4.05S=8 ************************************	-18-72 -18-72 -18-72 -19-18 -9-45 -9	42.69 41.48 44.45 47.88 51.94 54.72 56.58 58.62 OMEGA-BS HOCK -0000 -0000 -0000 -0000	17.566 4 419.8 421.9 423.9 432.7 463.6 526.3 521.7 514.2 FF-AD (000 0000 0000 0000 0000 0000	561.8 559.18 571.8 613.7 649.7 730.5 727.8 727.6 EFF-P 74TIC .8005 .8084 .8751 .8959 .8959	134.7 110.1 69.4 -33.7 -153.3 -256.8 -316.6 -331.6 -345.1 M-1 .5767 .5767 .596.4 .4991 .4762	FT/SEC -380 s -367 s -378 s -429 s -429 s -482 s -596 s -607 s -621 s M-2 .364( .379) .3879 .3879 .3879 .3879	FT/SEC 370-7 399-0 442-3 501-5 603-8 610-7 632-7 M*-1 3772 3772 3772 4136 4136 44682	FY/SEC 388.7 393.6 451.9 506.3 506.3 604.7 619.3 633.3 M*=2 .4959 .5045 .5146 .5146 .6455
% SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.798 28.860 29.570 30.240 INCS 2.22 2.66 2.26 2.26 2.26 2.26 2.26 2.2	18.580 19.110 19.740 21.400 24.200 26.800 29.500 30.270 INCM 0668EE 6.19 6.59 5.74 4.57 4.57	FT/SEC 643-1 627-7 593-6 553-6 527-3 593-6 478-1 494-4 478-1 DEV DEGREE 20-32 20-32 16-84 13-96 14-57 17-43	#13-1 #22-6 #29-7 #36-2 #36-2 #31-9 #01-0 379-1 TURN DEGREE \$10-74 #0-10 \$5.35 \$1.53 \$1.53 \$3.80	57.55 397.6 406.6 417.7 430.4 420.3 420.3 420.3 51.9 62.53 59.54 57.63 51.69 44.70 45.27 45.96	#12.8 #21.3 #37.9 #35.5 #29.8 #21.8 #00.8 378.9 \$0LIDTY 2.1684 2.0314 1.9494 1.75495 1.3672 1.2664 1.2554	505.5 494.0 408.6 348.2 367.2 287.2 287.6 U-FAC .5365 .6130 .4443 .4049 .3833 .4105	7.9 32.3 34.3 22.1 24.3 13.3 13.3 13.3 13.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0443 .0340 .0712	50.54 51.81 50.81 50.84 48.27 43.49 38.55 35.51 36.98 LOSS-P TOTALF •0302 •0180 •0143 •0180 •0180 •0283	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-B 2.302 .0302 .0143 .0143 .0143 .0143	-18-72 -19-45 -9-4	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.9 \$5.6.58 \$8.62  OMEGA-89 #000 *0000 *0000 *0000 *0000 *0000 *0000 *0000	#421-9 #421-9 #423-9 #432-7 #463-6 526-3 521-7 514-2 FF-AD -0000 -0000 -0000 -0000	561.8 5591.8 571.8 613.7 649.7 730.5 727.8 727.6 EFF-P ***********************************	134.7 134.7 109.4 -33.7 -153.3 -256.6 -316.6 -345.1 N-1 .5767 .5767 .5764 .4991 .4752 .4395	-360.5 -367.6 -367.6 -429.6 -482.6 -549.3 -607.4 -621.1 M-2 .3646 .3721 .3872 .3872 .3873 .3873 .3853	FT/SEC 370-7 399-0 442-3 501-5 603-6 603-6 603-6 632-7 8-2 3772 3786 3772 3866 4136 4434 4434	FT/SEC 388.7 399.8 491.9 506.3 506.3 604.7 619.3 633.3 M*-2 .4950 .5045 .5045 .5423 .5746 .6455 .6419
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.570 30.240 INCS UEGRLE 2.22 2.66 2.26 -94 92 -2.23	18.580 19.110 19.740 21.400 24.200 26.800 29.500 30.270 INCM 0668EE 6.19 6.59 5.74 4.57 4.57	FT/SEC 643-1 627-7 593-6 553-6 527-3 599-1 494-4 478-1 DEV DEGREE 20-32 20-32 16-84 13-96 14-57 17-43	#13-1 #22-6 #29-7 #36-2 #36-2 #31-9 #01-0 379-1 TURN DEGREE \$10-74 #0-10 \$5.35 \$1.53 \$1.53 \$3.80	57.55 397.6 406.6 417.7 430.4 420.3 420.3 420.3 51.9 62.53 59.54 57.63 51.69 44.70 45.27 45.96	#21.8 #21.3 #37.9 #35.5 #29.6 #00.8 378.9 SOLICTY 2.1084 2.0314 1.9494 1.75495 1.5868	505.5 494.0 408.6 348.2 287.2 287.6 U-FAC .5365 .4193 .4049 .3838	7.9 32.3 34.3 22.1 24.3 13.3 13.3 13.3 13.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0443 .0340 .0712	50.54 51.81 50.84 48.27 43.49 38.55 35.29 35.51 36.98 LOSS-P 1074LF 10302 10302 1043 1043 1043 1043 1043 1048	1.07 4.36 4.58 2.69 3.19 1.77 1.16 4.57 1.16 4.05S=8 ************************************	-18-72 -18-72 -18-72 -19-18 -9-45 -9	954-72 56-58 58-62 0MEGA-88 HOEN -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	17.566 4 419.8 421.9 423.9 432.7 463.6 526.3 521.7 514.2 FF-AD (000 0000 0000 0000 0000 0000	561.8 5591.8 571.8 613.7 649.7 730.5 727.8 727.6 EFF-P ***********************************	134.7 110.1 69.4 -33.7 -153.3 -256.8 -316.6 -331.6 -345.1 M-1 .5767 .5767 .596.4 .4991 .4762	-360.5 -367.6 -367.6 -429.6 -482.6 -549.3 -607.4 -621.1 M-2 .3646 .3721 .3872 .3872 .3873 .3873 .3853	FT/SEC 370-7 399-0 442-3 501-5 603-6 603-6 603-6 632-7 8-2 3772 3786 3772 3866 4136 4434 4434	FT/SEC 388.7 399.8 491.9 506.3 506.3 604.7 619.3 633.3 M*-2 .4950 .5045 .5045 .5423 .5746 .6455 .6419
% SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.798 28.860 29.570 30.240 INCS 2.22 2.66 2.26 2.26 2.26 2.26 2.26 2.2	18.580 19.110 19.710 19.740 21.600 24.200 26.880 28.900 30.270 INCN 0EGREE 6.59 5.74 4.07 5.21 6.56	FT/SEC 643-1 627-7 593-6 553-6 559-6 509-1 478-1 DEV PEGREE 20-10 16-84 13-96 14-57 16-17 18-17	#13-16 #22-6 #22-7 #36-2 #36-2 #30-9 #01-0 379-1 TURN BEGREE #0-69 #0-69 #0-69 \$5-35 \$33-86 35-14	57.55 397.6 406.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 62.53 59.54 57.03 51.69 44.76 45.27 45.27 45.76	#21.8 #21.8 #21.8 #21.8 #37.9 #35.5 #21.8 #00.8 378.9 SOLIDTY 2.1084 1.9494 1.75495 1.5495 1.2868 1.2554 1.2271	505.5 494.0 408.6 348.2 287.0 287.6 U-FAC .5365 .4443 .4049 .3839 .4443 .4443	7.9 7.9 32.3 34.3 22.1 24.3 8.4 11.9 12.2 OMEGA-B .1274 .1337 .1155 .0632 .0443 .0464 .0712 .0876	50.54 51.81 50.81 50.84 48.27 43.49 38.55 35.51 36.98 LOSS-P TOTALF •0302 •0180 •0143 •0180 •0180 •0283	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-B 2.302 .0302 .0143 .0143 .0143 .0143	-18-72 -19-45 -9-4	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.9 \$5.6.58 \$8.62  OMEGA-89 #000 *0000 *0000 *0000 *0000 *0000 *0000 *0000	#421-9 #421-9 #423-9 #432-7 #463-6 526-3 521-7 514-2 FF-AD -0000 -0000 -0000 -0000	7/SEC   561.8   559.1   571.8   571.8   613.7   649.7   730.5   727.6   727.6   727.6   8005   8059	134.7 110.4 -33.7 -153.3 -315.6 -331.6 -345.1 M-1 .5767 .5764 .5306 .4901 .4532 .4395 .4236	FT/SEC -380.5 -367.6 -378.1 -429.6 -482.6 -596.3 -607.4 -621.1 M-2 .364( .3726 .379; .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879	FT/SEC 3 70 - 7 3 39 - 0 5 442 - 3 5 501 - 5 6 603 - 8 6 618 - 7 6 32 - 7 8 - 3772 8 - 3806 9 - 3874 6 - 4682 9 - 4682 9 - 4683 9 -	FY/SEC 388.7 393.6 451.9 596.3 596.3 604.7 619.3 633.3 M*=2 .4950 .4928 .5045 .5145 .6455 .6455 .6404
% SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.798 28.860 29.570 30.240 INCS 2.22 2.66 2.26 2.26 2.26 2.26 2.26 2.2	18.580 19.110 19.740 19.740 21.600 26.880 28.990 29.600 30.270 INCN 0EGREE 6.19 6.59 5.74 4.57 5.21 6.56	FT/SEC 643-1 627-7 593-6 553-6 527-3 509-1 494-4 478-1 DEV DEGREE 20-32 20-32 16-84 13-95 16-17 17-43 18-17	TYSEC 413-15 422-7 438-5 436-2 430-9 421-9 401-0 379-1 TURN DEGREE 50-74 40-69 40-69 35-35 33-80 35-14 WC/A-1	FT/SEC 397.6 406.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 62.53 59.54 57.63 51.69 44.76 45.27 45.26	#12.8 #21.8 #21.3 #37.9 #35.5 #29.8 #400.8 378.9 SOLIDTY 2.1084 2.0314 1.9494 1.75495 1.2664 1.2554 1.2271	505.5 494.0 408.6 348.2 287.2 287.6 U-FAC .5365 .6136 .4443 .4049 .3839 .4105 .4417	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0443 .0712 .0876	50.54 51.81 50.81 50.84 48.27 43.49 38.55 35.51 36.98 LOSS-P TOTALF •0302 •0180 •0143 •0180 •0180 •0283	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-B 2.302 .0302 .0143 .0143 .0143 .0143	-18-72 -19-45 -9-4	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.9 \$5.6.58 \$8.62  OMEGA-89 #000 *0000 *0000 *0000 *0000 *0000 *0000 *0000	#421-9 #421-9 #423-9 #432-7 #463-6 526-3 521-7 514-2 FF-AD -0000 -0000 -0000 -0000	7/SEC   561.8   559.1   571.8   571.8   613.7   649.7   730.5   727.6   727.6   727.6   8005   8059	134.7 110.4 -33.7 -153.3 -315.6 -331.6 -345.1 M-1 .5767 .5764 .5306 .4901 .4532 .4395 .4236	FT/SEC -380.5 -367.6 -378.1 -429.6 -482.6 -549.1 -596.3 -607.4 -621.1 M-2 .364( .379) .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879	FT/SEC 370-7 370-7 7399-0 842-3 501-5 603-8 610-7 632-7 3778 3778 3786 3874 3	FT/SEC 388.7 393.6 451.9 506.3 506.3 604.7 619.3 633.3 M*=2 .4959 .4928 .5045 .5045 .5146 .6455 .6419 .6404 SLANT=2
% SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.798 28.860 29.570 30.240 INCS 2.22 2.66 2.26 2.26 2.26 2.26 2.26 2.2	18.580 19.110 19.740 19.740 21.600 26.880 28.990 29.600 30.270 INCN 0EGREE 6.19 6.59 5.74 4.57 5.21 6.56	FT/SEC 643-1 639-9 627-7 593-6 552-6 509-1 478-1 DEV DEGREE 20-32 20-32 16-17 17-43 16-17 WCOR-1	#13-16 #12-6 #29-7 #36-6 #36-2 #36-2 #36-2 #36-2 #36-9 #01-0 379-1 TURN #6-16 #3-69 #0-60 #3-89 #0-60 #3-89 #0-35-35 #3-80 #0-	FT/SEC 397.6 406.6 417.7 430.4 436.7 420.3 402.5 381.9 CAMBER 62.53 59.54 57.63 51.69 44.76 45.27 45.26	#21.8 #21.8 #21.8 #21.8 #37.9 #35.5 #21.8 #00.8 378.9 SOLIDTY 2.1084 1.9494 1.75495 1.5495 1.2868 1.2554 1.2271	505.5 494.0 408.6 348.2 287.2 287.6 U-FAC .5365 .6136 .4443 .4049 .3839 .4105 .4417	7.9 32.3 34.3 22.1 24.3 13.3 8.4 11.9 12.2 0MEGA-B .1274 .1337 .1155 .0632 .0443 .0712 .0876	50.54 51.81 50.81 50.84 48.27 43.49 38.55 35.51 36.98 LOSS-P TOTALF •0302 •0180 •0143 •0180 •0180 •0283	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-B 2.302 .0302 .0143 .0143 .0143 .0143	-18-72 -19-45 -9-4	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.9 \$5.6.58 \$8.62  OMEGA-89 #000 *0000 *0000 *0000 *0000 *0000 *0000 *0000	#421-9 #421-9 #423-9 #432-7 #463-6 526-3 521-7 514-2 FF-AD -0000 -0000 -0000 -0000	7/SEC   561.8   559.1   571.8   571.8   613.7   649.7   730.5   727.6   727.6   727.6   8005   8059	134.7 110.4 -33.7 -153.3 -315.6 -331.6 -345.1 M-1 .5767 .5764 .5306 .4901 .4532 .4395 .4236	FT/SEC -380.5 -367.6 -378.1 -429.6 -482.6 -549.1 -596.3 -607.4 -621.1 M-2 .364( .379) .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879	FT/SEC 370-7 370-7 7399-0 842-3 501-5 603-8 610-7 632-7 3778 3778 3786 3874 3	FY/SEC 388.7 393.6 451.9 596.3 596.3 604.7 619.3 633.3 M*=2 .4950 .4928 .5045 .5145 .6455 .6455 .6404
% SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17.720 18.356 19.070 21.148 23.970 26.798 28.860 29.570 30.240 INCS 2.22 2.66 2.26 2.26 2.26 2.26 2.26 2.2	18-580 19-110 19-110 19-170 21-600 21-600 24-200 25-600 28-900 30-270 INCM 056855 6-19 6-59 5-74 4-57 5-21 6-56	FT/SEC 643-1 643-1 627-7 593-6 553-6 509-1 494-4 478-1 DEV DEGREE 20-00 14-57 16-17-16-17-17-17-17-17-17-17-17-17-17-17-17-17-	#13-16 #13-16 #22-7 #36-2 #36-2 #36-2 #36-2 #36-2 #37-1 #3-1 #3-1 #3-1 #3-1 #3-1 #3-1 #3-1 #3	FT/SEC 397.6 406.6 417.7 430.4 420.3 402.5 381.9 CAMBER 62.53 57.03 57.03 45.27 45.27 45.96 40.76	#12.8 #21.8 #21.3 #37.9 #35.5 #29.8 #400.8 378.9 SOLIDTY 2.1084 2.0314 1.9494 1.75495 1.2664 1.2554 1.2271	505.5 494.6 408.6 348.2 287.2 287.0 287.6 L-FAC .5365 .4493 .4443 .4443 .4443 .4443 .4443 .4443	7.9 32.3 34.3 22.1 24.3 8.4 11.9 12.2 0MEGA-B .1274 .1337 .1155 .0433 .0444 .0712 .0876 EFF=P	50.54 51.81 50.81 50.84 48.27 43.49 38.55 35.51 36.98 LOSS-P TOTALF •0302 •0180 •0143 •0180 •0180 •0283	1.07 4.58 2.89 3.19 1.77 1.184 LOSS-B 2.302 .0302 .0143 .0143 .0143 .0143	-18-72 -19-45 -9-4	#2.69 #1.10 #1.48 #4.45 #7.88 \$1.9 \$5.6.58 \$8.62  OMEGA-89 #000 *0000 *0000 *0000 *0000 *0000 *0000 *0000	#421-9 #421-9 #423-9 #432-7 #463-6 526-3 521-7 514-2 FF-AD -0000 -0000 -0000 -0000	7/SEC   561.8   559.1   571.8   571.8   613.7   649.7   730.5   727.6   727.6   727.6   8005   8059	134.7 134.7 109.4 -33.7 -153.3 -315.6 -331.6 -331.6 -345.1 M-1 .5767 .5767 .5306 .4991 .4532 .4395 .4236	FT/SEC -380.5 -367.6 -378.1 -429.6 -482.6 -549.1 -596.3 -607.4 -621.1 M-2 .364( .379) .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879 .3879	FT/SEC 370-7 370-7 7399-0 842-3 501-5 603-8 610-7 632-7 3778 3778 3786 3874 3	77.5EC 388.7 388.7 413.6 451.9 506.3 562.4 604.7 619.3 633.3 M*-2 .4928 .5045 .5423 .5746 .6455 .6459 .6459 .6459

Blade-Element and Overall Performance with Stator-Hub Slit Suction 65% of Design Speed

	07		N.—•		1/44 - 4			4.3 (3	0-4	3-8			14 B m 4	110-6	unter	V04-0	41-4	
% SPAN	IN-	TH-S	FT/SEC	FT/SEC	FIVEE	FT/Sec-	TVSEC.	FT/SEC	<del>∂Egy<u>ë</u>r"</del> Baj	<del>'Egye</del> E-t	EBREE	DECREE	FTEEC	FT/SEC	FYSEC	FT/SEC	#1/SEC	#7/5Ec
5 10	13.120	16.790	) 3 <b>19.</b> Ł	676.7	<b>3</b> 09.8	378.3	• 0	561.1	• 33	56.01	41.53	-30.82 -25.75	413.9	440,6	-274,4	225.8	274.4	335.3
15	13.176						•0		* 70	52.41		-19.16			-317.3			
30	19.590	19.910	335.1	576.9	335.1	375.9	•0	437.5	•00	49.31	48.73	-3.14	508.5	378.0	-382.3	21-1	302.1	416.4
50 70		23.09.	345.7				•0	= - =	• 00	45.65	53.29					-110.3	464.1 	
85	24.450				349.3		•0		•00	43.41	59.58	<del>32-23</del> 41-11				-287.2		
90	29.320	29.410	348.7	436.4	348.7	304-1	•0	312.9	• 00	45.65	60.36	44.45	705.5	429.0	-613.2	-302-2	413.4	415-1
95	\$3.150	30.183	348.0	422.5	348.0	283.0	•0	313.2	•00	47.84	61.11	48.27	720.2	426.2	-630.6	-318-0	630.4	631.2
* CDAN	INCS	INCM	DESSE			SOLIDTY	D-FAC	OMEGA-B				EFF-F		OMEGA-B	Me1	M-2	M*-1	M1-2
% SPAN 5	.58	7.49		72.35		2.4319	.2419	.2067			1.2048				.2803	•6100	.3756	.3972
10	1.01		5.43			2.2636	3151	.1442	.0284	-0284	1.2100	9302				.590		
15	2.35	8.61				2.1540	.3696				1.2109							
30	3.63 4.67	9-18	10.56			1.6594	•4921 •5348	•0 <b>622</b>			1.2096							
50 70	-5,86					1.5343			•0132 •0136		1.2073							
85	6.24		11.17				.5233	6960		.0251	1.1981	.8893	. 8863	•0000		400	.6260	
90	6.23		12.50				-5449	+1414	-0354	. 0354	1 - 1916	.8352						
95	6.08	9.45	14.11	12.84	17.48	1.3891	.5649	•1733	•0415	.0415	1.1866	.7952	•7900	•0000	. •3146	.3720	.6520	.3752
			WCOR-1			P02/	EFF-AD	EFF-P						,	STA-1 S			SLANT-2
		Mary Mary	BM/SEC	<del>som/ sec</del> Sof t	108	-: <del>01</del>							***	······································			FOMES	DESNEE-
		47.93.			-1.0591	1,2036	92.077	96.87							5.0	6.0	86.05	95.02
STA'	TOR															-	•	
~											•	•						
% SPAN	DIA-1	1N -5	F7/SEc.	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FI/SEC	DEGREE.	HERREE !	PEREE	DEGREE	FT/SEC	FT/SEC	FYZSE	FIZSE	FTZSE	FTISSE
5		18.560	618.3	375.0	353.6	374.8	507.2	•4	55.12	. 05	-21.1	2 46.00	379.	1 539.7	136.6	-388.;	2 370.0	
10 15						379.6					-16.4	1 44.29 4 44.45				-370+1 -375•1		
30			600.4			362.9					4.3					-429.		
50		24.200		405.4		404.4				3.93	19.3	9 49.77	427			-478		
70	26.790	26.88(	<del>514-0</del>	<del>406</del> +1	<del>402+</del> 6	<del></del>			<del></del>	2.01	30-BI			<del>7681.0</del>		<del>, =847+</del> 1	- 660-l	
85		28.900				393.7				1.93	37.3					-591.		
90 95						373+9 357.7				2.14 2.19	39.90					-60 <b>5</b> .;		
33									• •	-				_		, -1		
% SPAN	INCS	INCM	DEV DEGREE	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-H	LOSS-P	L035-P		omega=8 <del>Xook</del> -			M-1	M-2	M'-1	M1-5
5	5.41					2.1087	.5831	•1339			974				.5522	.329	7 .339	5 .4744
10	5,40	9.6	20.35	48.96	59,58	2.0317	- 15591	11423	+0349	19849	.973	7 +0006		7931	. 546	1 334	9 .341	6 .4664
15	4.66			45.06		1.9502					.975		-					
30 50	3.7 <del>6</del> 2.25			37.77		1.7 <del>56</del> 4 1.5505				•0232 •0177	986							
50 70	<del></del>					1.3877			V0176	<del></del>	993			•				
85	1.60	8.05	9 16.95	36.55	45.27	1.2870	.4352	+0724	0281	.0281	.991	0 .0000						
90	- 3,24	9.84				1.2556						4 +0000	.000	0 .7742	.4260	.328	7 -425	0 .6250
95	4.57	11.3	1 18.51	39.52	2 40.75	1.2272	.4969	•1176	• 0479	.0479	, 986	9 •0000	•000	0 •7366	•415	•313	9 .418	8 .6273
			WCOR-1			P02/	EFF-AD	EFF-P							STA-1 S			SLANT-2
		<del>                                     </del>	BM/SEC	LUM/SEC		<del>P01</del>												-93893G-
				SOFT													PAMEE -	2025

## Blade-Element and Overall Performance with Stator-Hub Sli<sup>+</sup> Suction 65% of Design Speed

DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 U-2 B-1 DIA-2 VI-1 VI-2 VOI-1 VOI-2 U-1 U-2
IN IN FT/SEC SSPAN IN 5 13-120 16-030 275.9 657.7 275.9 342.4 .0 561.5 .00 56.62 44.85 -33.42 389.2 410.5 -274.5 226.1 274.6 335.4 .00 56.67 46.37 -27.21 407.5 393.1 -295.0 179.8 295.0 351.3 14.100 16.790 281.1 635.6 281.1 349.1 .0 531.1 15-170 17-580 286-3 612-7 286-3 353-8 +00 54.7R 47.93 -20.47 427.5 378.2 -317.4 132.3 317.4 367.6 +0 500+1 18.280 19.910 298.1 561.6 298.1 349.1 ·0 439.8 .00 51.54 52.03 -3.72 485.0 351.3 -382.4 .00 49.13 56.56 16.33 556.2 346.3 -464.3 23.3 382.4 416.6 306+2 509+1 306+2 333+6 -vu 385v1 22+190 23+096--98.0- 464.8--483-1-.00 48.04 60.39 32.44 622.7 373.5 -541.5 -199.9 541.5 549.4 25.880 26.260 307.5 470.2 307.5 314.5 •0 349.5 .00 52:14 62:85 43:42 668:9 369:5 -595:2 -253:7 595:2 598:6 .00 54:73 63:63 47:41 684:7 363:8 -1:3:4 -267:5 613:4 615:3 .00 56:48 64:34 50:90 699:8 365:6 -:30:8 -283:7 630:8 631:4 28.450 28.610 305.2 437.0 335.2 268.2 +0 3<del>44</del>+8 29.320 29.410 304.1 426.2 304.1 246.1 .0 347.8 .0 347.7 30-150 30-180 303-0 417-1 303-0 230-4 INCS INCH DEV TURN CAMBER SOLIDTY D-FAC OMEGA-8 LOGS-P LOGS-P PO2/ EFF-P EFF-AD OMEGA-8 M-1 M-2 M1-1 M1-2
EGREE DEGREE DEGREE DEGREE

TOTAL PROFILE PO1 TOTAL TOTAL SMOCK

3.91 10.02 3.50 76.27 71.16 2.4315 .2715 .2439 .0419 .0419 1.2040 .9036 .9010 .0000 .2492 .5916 .3530 .3692 % SPAN DEGREE DEGREE DEGREE DEGREE 4.95 11.56 4.00 73.58 66.12 2.2829 .3456 .1737 .0338 .0338 1.2070 .9244 .9223 •0000 .2545 .5706 .3716 .3529 5,69 11,94 - <del>6,46 68,40 63,</del>01 2,1538 ,4067 ,1255 ·0273 ·0273 1.2075 19394 19377 ·0000 .2693 .5490 .3904 .3369 6.83 12.47 10.01 55.75 53.32 1.9013 . 9544 -0000 .2696 .5240 .0719 .0189 .0189 1.2104 .9556 .5009 .4422 .3133 7.96 12.89 11.81 40.23 J9.16 1.6834 +5826 +0746 \*0212 -0000 +2765 <del>+9416</del> <del>v 9403</del> .5845 .1022 .6269 .1857 •0000 •2773 •4157 •0000 •2751 •3846 9.16 13.32 12.28 27.95 26.92 1.5338 .0261 .0281 1.2085 .9048 .9021 .5661 .3302 9.51 13.16 13.52 19.43 19.75 1.4420 -6074 •3525 9.47 12.97 15.13 16.22 18.34 1.4148 .6484 .2198 ·0000 ·2741 ·3744 ·6205 .3196 9.29 12.64 16.75 13.44 17.48 1.3890 .6567 .2393 -0000 -2733 -3659 -6328 NCOR-1 WCOR-1 NC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 P01 DEGREE DEGREE SWET 4795.0 96.23 21.70 1.0620 1.2067 89.017 89.33 5.0 5.0 86.05 95.02 STATOR VM-2 VU-1 VB-2 B-1 B-2 B-1 0+-2 V+-1 V+-2 V0+-1 V0+-2 U-1 U-2 ASPAN IN IN FT/SEC 17.720 18.860 597.6 339.5 314.4 338.9 508.2 -12.2 58.26 -2.07 -23.61 49.78 343.2 525.0 137.4 -400.9 370.7 388.7 18.350 19.110 588.2 339.6 329.0 338.8 487.5 20.8 55.99 3.52 -17.49 48.20 345.1 508.4 103.6 -379.0 383.9 399.8 <u>-19-070 19-740 -574-7 341-9 341-9 340-2 461-9 34-3 53.48 5.75 -10-44 48.07 348-0 509-1 62.9 -378-7 399-0 413-0</u> 4.42 4.47 49.25 362.3 559.2 -28.4 -423.7 442.3 451.9 4.19 19.67 51.92 388.3 608.2 -130.9 -478.8 501.5 506.3 21.140 21.660 546.0 366.1 360.4 365.6 413.8 28.2 46.94 23.970 24.200 52000 376.0 384.8 376.6 27.6 45.44 26.790 26.880 495.0 373.2 358.2 372.5 341.6 23.5 43.65 3.60 31.43 55.33 420.3 655.3 -218.9 -538.9 560.5 562.4 20,000 20,000 460.0 341.5 322.4 341.2 340.2 14.3 46.55 2.39 39.27 59.96 416.6 681.9 -263.6 -590.3 603.8 604.6 29.570 29.600 460.1 331.4 305.0 331.3 344.4 7.1 48.48 1.22 41.98 61.57 410.3 696.1 -274.3 -612.2 618.7 619.3 30.240 30.270 463.1 326.1 326.1 346.9 5.2 49.46 .91 44.43 62.64 408.2 707.3 -285.8 -628.1 432.7 633.3 90 INCS INCH DEV TWAN CAMBER SOLIUTY DAFAC ONEGA-B LOSS-P LOSS-P DOS/ ONEGA-B EFF-AD EFF-P M-1 M-3 M'-1 M'-2 SPAN DEGREE DEGREE DEGREE LEGREE DEGREE TOTAL PROFILE POI SHOCK TOTAL STATIC 8.39 12.34 14.42 60.32 62.52 2.1969 .6336 .1546 .0366 .0366 .9727 .0000 .0000 .7928 .5319 .2979 .3069 .4607 8.06 12.32 19.44 52.47 59.52 2.0323 .6134 .1706 .0419 .0419 .9707 .0000 .0000 .7684 .5236 .2980 .3085 .4462 7.57 11.66 21.17 47.74 56.99 1.9515 .5918 .1671 .0426 .0426 .9725 .0000-.0000 .7628 .5125 .3002 .3109 .447e .0331 .0331 .9824 .0000 6.48 11.26 18.39 44.52 51.65 1.7585 .5302 .1168 .0000 .8066 .4898 .3219 .3224 .4918 4882 -5884 V0000 -3434 6-62 11-49 14-91 41-24 44-67 1-6519 +U275 +0275 -8361 -4631v0855 **▼0000** v3307 **-5349** • 0355 .0355 .9878 .0000 5.96 12.04 16.46 40.05 44.21 1.3682 .4770 .0987 .7965 .4399 .3279 .3723 • 0000 .5758 .5415 .1724 • 0669 10669 ,5868 .0000 .6642 .4147 .2989 .368£ . 5968 9.56 16.06 17.42 44.16 46.29 1.2872 •0000 11.43 18.62 16.94 47.26 45.96 1.2557 .5715 .1929 .0766 .0768 .9794 .0000 .0000 .6312 .4060 .2896 .3620 .6083 12.86 19.59 17.24 49.05 46.75 1.2272 .5896 .2035 -0829 .0829 .9749 .0000 .0000 .6021 .3987 2837 .3581 .6171 NCOR-1 WEGH-1 WG/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 PO1 DEGREE DEGREE

11.0 12.0 90.00 90.00

4795.0 96.23 21.70 1.0620 1.1858 80.495 81.02

			Bla	de-E	lement	and O	veral	l Perf	orman	ce wit	h State	or-Hu	b Slit s	Suction	ı			
ROT	ror						80	% of D	esi gn	Speed								
% SPAN	ÓIA-1 IN	DIA-2	V-1 FT/SEC I	V-2 FT/SEC	FT/SEC F	VM-2	V0-1 FT/SEC	Va-2	B-1 DF <b>GR</b> FF	8-2 DESREE	B'-1	81-2	V'-1	VI-2	V0'-1	V01+2	U+1 FT/SEC (	U=2 FT/SEC
5	13.120			945.	491.9	606.0	• (	726.1	.00	50.15	34.50	-27.3	596.9	682.1	-338.1	313.0	338.1	413.1
10		16.790				600.6			•00		35.91	-24.27		659.2	~363.3		363.3	432.6
15		17.580			511.6	601.1	•6		.60		37.37	-18.82	643.5	636.1	-390.9	208.4	390.9	453.0
30		19.910				592.3	•6		.00	42.20	41.31				-471.0	24.8	471.0	
50		23.090				562.7	•0	428.1	00.	37.23	45.83	16.47	797.0	588.7	-571.8	-166.9	571.a	595.0
70		26.260			563.1	533.5		346.9	.00	33.02	49.80	31.66	672.9	628.0	-666.9	-329.6	666.9	676.7
85		28.610		593.5		504.8	• 0	312.2					924.8		-733.1		733.1	737.2
90		29.410		567,5	562.9	477.0	•0		.00	32.82	53.31			656.5	-755.5	-450.5	755.5	757.8
95	30.150	30.180	562.1	540.6	562.1	447.3	• 0		.00		54 - 11				-776.9		776.9	777.7
	INCS	INCM	DEV	TURN	CAMBER S	OLIDTY	D-FAC	OMEGA-P	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AD	OMEGA-B	M-1	M-2	M*-1	M1-2
% SPAN	DEGREE	DEGREE	DEGREE C	EGREE	DEGREE				TOTAL	PROFILE	PO1	TOTAL	TOTAL S	HOCK				
5	-6.47		9.56	61.82		2.4326	.1322	.1769	.0323	.6323	1.3355	.8993	.8950		.4502	.8676	.5472	.6257
10	-5,56		6.88	60.18			.206 <sub>U</sub>	•1144	.0228	.0228	1.3550	•9311	9280			.8454	.5702	.6024
15	-4,91	1.37	8.07	56.20			.2665		.0174	.0174	1.3540	.9475	.9452	.0000		.8116	. 5932	.5789
30	-3.90		11.37	43.65			.3720		.0094	.0094	1.3327				.4916	.7219	.6566	.5366
50	-2.79		11.95	29.35			.4231		.0094	.0094	1.3026	.9626		-0000	.5101	.6329	.7341	.5268
70	-1.46		11,58	18,14		1.5345		0372	.0103	b.103	1.2723	.9479			.5176	5670	.6036 .8515	.5595
85	-,89		10.15	12.35			.4036	.,667	.0177	.0177	1.2507	.8966			.5180	.5270		. 5861
90	-,83		11.21	9.93		1 • 4 1 48	.4187	•1063	•02/3		1.2337			.0000	.5173	-5025	.8671	.5812
95	-,91	2.47	12.50	7.46	17.48	1 • 3891	•4344	• 1451	• 0358	. 0358	1.2165	•7662	.7596	• SOCO	.5165	.4773	.8817	.5754

	NCOR-1	WCOP-1	WC/4-1	Too.	B034	FFE-40 F	F0						_			بداط جددا	. '
-,83 -,91	2.68	10.15 11.11 12.5 <sub>0</sub>	9.93	19.70 18.34 17.48	1.4148	+187	• 667 • 1063 • 1451	·0177 ·0273 ·0358	.0273	1.2507 1.2537 1.2165	.8966 .8322 .7662	,8272	.0000 .0000 .0000	.5180 .5173 .5165	.527 <sub>0</sub> .5025 .477 <sub>3</sub>	.8515 .8671 .8817	.5861 .5812 .5754
-4,91 -3.90 -2.79 -1.46	1.77	8.07 11.37 11.95 11.58	56.20 43.65 29.35 18.14	52.94 53.26 39.13 26.99	2 · 1560 1 · 9038 1 · 6899 1 · 5345	.2665 .3720 .4231 .4108	.0792 .0358 .0333	.0174 .0094 .0094	.0174 .0094 .0094	1.3540 1.3327 1.3026	.9475 .9688 .9626	.9452 .9675 .9612	.0000	.4697 .4916 .5101	.8116 .7219 .6329	.5932 .6566 .7341	.5769 .5366 .5268 .5595
-3,36	1.00	0.08	00.15	66.03	2+2545	.2000	.1144	.0225	.0228	1.3550	•9311	.9250	• 2000	.4603	. 8454	.5702	.6024

MCOVAT MCOK-T MCVM-T LOSY &			STA-1 ST	A=2	SLANT=1	SLANT=2	
RPM LBM/SEC LBM/SEC TO1 P	01 %						
SOFT							
5905.6 160.34 36.15 1.0818 1	-2907 92.492	92.82	5.0	6.0	86.05	95.02	

STAT	OR																	
% SPAN		IN	V-1 FT/SEC	V-2 FT/SEC	FT/SEC	VM-2 FT/SEC	FT/SEC	Va=2	DEGREE	DEGREE	Degree	DEGREE I	FT/SEC	V'-2 FT/SEC	VO'-1 FT/SEC	V01-2	U-1	U-2 T/SEC
5 10	17.720	10.300	880.0	015.7	7 587.0	015.1	655.6	25.8	48.16	2.37	-18.73	36.37	619.9	763.9	199.0	-453.0	456.6	478.8
15	19.070	19.740	866.3	630.0 640.5						2.43	-15.93	35.87 36.73	625.7	776.1 798.3		-454.8 -477.4	472.8	492.4 508.7
30			814.6	633.3					38.46						-38.0	-527.8	544.7	
50		24.200			632.5	613.3			33,08	3.01						-591.3		
70			702.9		615.1		340.0			- 19	29.63	49.18	708.5			-690.6		692.6
85		28.900							27.55	53	36.18		735.7	945.6	-434 . 2	-750-1	743.7	744.7
90		29.600							28.12	• 06	38.61	54.44	731.9	937.3	-456.5	-762.2	762.0	762.7
95	30.240	30.270	626+1	510.4	547.9	510.4	303.1	2.5	28,95	.28	40.99	56,72	725.9	930.1	-476.2	-777.5	779.2	780.0
% SPAN	INCS	INCM	DEV DEGREE I	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-8		Loss-p Profile	P02/	OMEGA-B	FF-AD	FFFFF	M-1	M-2	M*-1	M*-2
5	-1.42	2.56	18.89	43.77	62.59	2-1077	.4657	•1208	.0286		.9585	+0CK 1		-0171	.7998	.5418	5444	.6722
10	-,89		19.38	43.55		2.0296		1321	.0325								.5680	.6836
15	-1:56	2.78				3469	1284	1065					.0000	.5486		.5549 .5654	.5700	.7046
30	-4,22	•60		35.85		1.7524			0190				.0000	9218		.5605	5789	7293
50	-6.47	96	13.81			1.5482		-0453	0146				.0000	.9437	.5788	.5443	5999	.7553
70	-8,63	-2.51				1.3867											6357	8098
85	-9,22		14.51	28.06	45.29	1.2866	.3228	370	.0144				.0000			.5103	.6562	.8382
90			15.78	28.06	45-96	1 - 2554			•0260		9868					.4817	6531	.8283
95	-8.24	-1.48	16.60			1.2271		• ¿95 <sub>0</sub>	0387	.0387					M M -		.6460	.8192

NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P
RPM &	BM/SEC	BM/SEC	Tol	P01		*
		CAPT				

5905.6 16 0.34 36.15 1.0818 1.2691 86.154 86.69

STA-1 STA-2 SLANT-1 SLANT-2 DESPEE DESPEE

11.0 12.0 90.00 90.00

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOL

80% of Design Speed

		DIA-2		V-2	_VM-1	VM-2	_v0=1	_V0=2	8-1	B-2	81-1	B*-2	V*-1	V1-2	V0*-1	V0*-2	U <b>-1</b>	U~2
% SPAN 5		IN	FT/SEC	FT/SEC	FT/SEC I	FT/SEC F	T/SEC !	FT/SEC_C	EGREE C	EGREL C	EGREE !	DEGREE	FT/SEC F	T/SEC F	T/SEC	FT/SEC	FT/SEC	FT/SEC
10					473.4		• 0					-27.54		647.7				412.4
15		16.790 17.580				565.7	• 0		.00	50.64		-24.47			-362.8			
30		19.910					•0	646.0	.00	48.68			628.2		-390.3			
50		23.090				564.5 534.8	• 0	530.5 431.8	.00	43.18		-1.79			-470.3			
70		26.260				509.1	•0		.00	38.89 34.95	46.90 50.85					-162.		
85		28.610			542.6			320.3	.00		53.45			602.0				
90		29.410				459.4	•0		.00	34.43	54.30					-415.( -442.(		
95		30.180		533.1		432.9	•0	311.1	.00	35.70	55.09			635.6				
							••		,	50170	-5009	4	74717	0,550	-,,,,,,,	-4024	• //3•/	770.5
	INCS	INÇM	DEV	TURN	CAMBER S	SULIDTY	D-FAC (	OMEGA-B	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AD C	MFGA-R	M-1	M-2	M*-1	M1-2
% SPAN	DEGREE		DEGREE	DEGREE	CEGREE				TOTAL		PO1	TOTAL	TOTAL SH					
5	-5.48	1.43			71.02			.1541	0261	.0281	1.3343			.0000	.4327	.8359	9 .5324	.5919
10	-4.55	2.09				2.2547		.1081	.0215	.0215	1 . 3491	9366		.0000	.4422			
15	-3.88	2.40			62.94		.2999	• 9712	•0156	.0156	1.3487	.9539	,9519	.0000	.4511			
30	-2.84	2.83				1.9038	. 3952	• 6154	•0040	.0040	1.3339			.0000	.4720	.697	2 .6410	.5100
50	-1.72	3.25				1.6899	.4494	•0221	•0063		1.3097			.0000	.4896	.613	7 .7185	.5004
70	42	3.78				1.5345	.4347	.0261	.0072		1.2852			.0000	.4970	.552	2 .7884	.5350
85	•11	3.80			19.69		.4212	0493	.0130		1.2670			.0000	.4977			
90 95	•16 •07	3.68 3.45		10.40	18.34	1.4148	.4333		•0216		1.2522			.0000	.4971			
95	•0,	3.43	15.27	0.03	17.48	1.3021	.4464	.1201	•0294	,0294	1.2376	.8155	.8099	.0000	.4964	.470	0 .8680	.5604
		NCOR-1	WCOR-1	WC/4-1	T02/	P02/	EFF-AD	FEC-0										
			BM/SEC			P01	¥	CFF-F							1A-1 5		SLANT-1	
				SOFT				¥									DEGREE	DEGREE
		5896.0			1.0823	1.2993	94.451	94.68							5.0	6.0	86.05	95 02
				•											3.0	0.0	90+03	73.02
STA	TOR																	
עיט	1011																	
DIA		014-2	V-9	V.m.2	VM-4	VN-2	\(\frac{1}{2} = \frac{1}{2}	V0-0	0-4	D 3	D11	01-3		V1-3	V69-4	V01-3		11
	DYA-1	DIA-2	V-1 FT/SEC	V=2	VM-1	VM-2	V0-1	V0-2	8-1 negree :	8-2 DEGREE	8'-1	B'-2	V1-1	V1-2	V0'-1	V01-2	U=1	U=2 ET/SEC
% SPAN 5	DYA-1 IN	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGRÉE	DEGREE	DEGREE	DEGREE	FT/SEC !	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN	DYA-1 IN 17.720	IN 18.58	FT/SEC	FT/SEC 573.9	FT/SEC 553.7	FT/SEC 573.4	FT/SEC	FT/SEC 21.5	DEGRÉE (	DEGREE 2.14	DEGREE -18.65	DEGREE 38,53	FT/SEC 1	732.9	186.	FT/SEC 9 -456.	FT/SEC 5 455.9	FT/SEC 478.0
% SPAN 5	01A-1 IN 17.720 18.350	IN 18.58 19.11	FT/SEC 848.4	573.5 588.0	FT/SEC 553.7 563.5	573.4 586.7	642.8 631.9	FT/SEC 21.5 39.7	DEGRÉE   49.26 48.27	2.14 3.87	0EGREE -18.65 -15.83	DEGREE 38.53 37.61	FT/SEC   584.4 565.8	732.9 740.5	186. 186. 159,	FT/SEC 9 -456. 8 -451.	FT/SEC 5 455.9 9 472.1	FT/SEC 478.0 491.7
% SPAN 5 10	0YA-1 IN 17.720 18.350 19.070	IN 18.58	FT/SEC 848.4 846.4 831.5	573.9 588.0 597.6	FT/SEC 553.7 563.5 578.2	573.4 586.7 596.4	642.8 631.9 597.2	FT/SEC 21.5 39.7 36.4	DEGREE   49.26 48.27 45.92	2.14 3.87 3.50	0EGREE -18.65 -15.83 -10.46	DEGREE 38.53 37.61 38.32	FT/SEC   584.4 565.8 588.6	732.9 740.5 760.3	186. 186. 159, 106.	FT/SEC 9 -456. 8 -451. 5 -471.	FT/SEC 5 455.9 9 472.1	FT/SEC 478.0 491.7 507.9
% SPAN 5 10 15	DTA-1 IN 17.720 18.350 19.070 21.140	18.58( 19.11( 19.74(	FT/SEC 848.4 846.6 831.5 784.3	573.5 588.0	553.7 563.5 578.2 604.1	573.4 586.7 596.4 598.1	642.8 642.8 631.9 597.2 499.8	FT/SEC 21.5 39.7 36.4 28.3	DEGREE   49.26 48.27 45.92 39.58	2.14 3.87 3.50 2.71	0EGREE -18.65 -15.83 -10.46	DEGREE 38.53 37.61 38.32 41.40	FT/SEC   584.4   565.8   588.6   607.0	732.9 732.9 740.5 760.3 797.5	186.1 159.1 106.1	FT/SEC 9 -456. 8 -451. 6 -471. 1 -527.	FT/SEC 5 455.9 9 472.1 4 490.6 4 543.9	FT/SEC 478.0 491.7 507.9 555.7
% <u>SPAN</u> 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	18.58 19.11 19.74 21.60	FT/SEC 848.4 846.6 831.5 784.3	FT/SEC 573.9 588.0 597.6 598.7 584.2	FT/SEC 553.7 563.5 578.2 604.1 599.5	573.4 586.7 596.4 598.1 583.4	FT/SEC 642.8 631.9 597.2 499.8 415.9	FT/SEC 21.5 39.7 36.4 28.3 30.3	DEGREE   49.26 48.27 45.92 39.58 34.73	2.14 3.87 3.50 2.71	0EGREE -18.65 -15.83 -10.46 4.14 18.47	DEGREE 38.53 37.61 38.32 41.40 45.42	FT/SEC   584.4   565.8   588.6   607.0   633.3	732.9 732.9 740.5 760.3 797.5 831.6	FT/SEC 186. 159. 106. -44. -200.	FT/SEC 9 -456. 8 -451. 5 -471.	FT/SEC 5 455.5 9 472.1 4 490.6 4 543.5 3 616.1	FT/SEC 478.0 491.7 507.9 555.7 622.6
% SPAN 5 10 15 30 50	DTA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	IN 18.58 19.11 19.74 21.60 24.20	FT/SEC 848.4 846.6 831.5 784.3 729.6 681.5	573.5 573.5 588.0 597.6 598.7 584.2 569.3	553.7 553.5 563.5 578.2 604.1 599.5 585.8	573.4 586.7 596.4 598.1 583.4 569.2	FT/SEC 642.8 631.9 597.2 499.8 415.9	FT/SEC 21.5 39.7 36.4 28.3 30.3 4.8 -3.2	DEGREE   49.26 48.27 45.92 39.58 34.73 30.77 29.19	2.14 3.87 3.50 2.71 2.97	0EGREE -18.65 -15.83 -10.46 4.14 18.47 30,12	DEGREE 38.53 37.61 38.32 41.40 45.42 50.33	FT/SEC 1 584.4 565.8 588.6 607.0 2 633.3 678.1	732.9 732.9 740.5 760.3 797.5 831.6 892.1	FT/SEC 186. 159. 106. -44. -200.	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592.	FT/SEC 5 455.9 9 472.1 4 490.6 4 543.9 3 616.7	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6
% SPAN 5 10 15 30 50 70	DTA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.58 19.11 19.74 21.60 24.20 26.88	FT/SEC 848.4 846.6 831.5 764.3 729.6 681.9	573-9 588-0 597-6 598-7 584-2 569-3 550-5 523-5	FT/SEC 553.7 563.5 578.2 604.1 599.5 585.8 568.2 548.5	573.4 573.4 586.7 596.4 598.1 583.4 569.2 550.5 523.5	FT/SEC 642.8 631.9 597.2 499.8 415.9 348.9 317.4 312.8	FT/SEC 21.5 39.7 36.4 28.3 30.3 4.8 -3.2	DEGREE   49.26 48.27 45.92 39.58 34.73 30.77 29.19	2.14 3.87 3.50 2.71 2.97 .48	0EGREE -18.65 -15.83 -10.46 4.14 18.47 30.12 36.80	DEGREE 38.53 37.61 38.32 41.40 45.42 50.33	FT/SEC 5 584.4 5 55.8 5 588.6 6 607.0 6 633.3 6 78.1 7 7 9.7	732.9 732.9 740.5 760.3 797.5 831.6 892.1 927.8	186. 159. 106. -44. -200. -425.	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592. 4 -686.	FT/SEC 5 455.9 9 472.1 4 490.0 4 543.9 3 616.7 7 689.1	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5
% SPAN 5 10 15 30 50 70 85	DYA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.58 19.11 19.74 21.60 24.20 26.88 28.90	FT/SEC 9 848.4 9 846.6 9 831.5 7 764.3 9 681.9 9 650.3 0 631.5	573-9 588-0 597-6 598-7 584-2 569-3 550-5 523-5	553.7 553.5 563.5 578.2 604.1 599.5 585.8	573.4 573.4 586.7 596.4 598.1 583.4 569.2 550.5 523.5	FT/SEC 642.8 631.9 597.2 499.8 415.9 348.9 317.4 312.8	FT/SEC 21.5 39.7 36.4 28.3 30.3 4.8 -3.2	DEGREE   49.26	2.14 3.87 3.50 2.71 2.97 .48 32	0EGREE -18.65 -15.83 -10.46 4.14 18.47 30.12 36.80 39.25	DEGREE 38.53 37.61 38.32 41.40 45.42 50.33	FT/SEC 5 584.4 5 55.8 5 588.6 6 07.0 2 633.3 6 78.1 7 7 9.7 7 7 0 8.4	732.9 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8	FT/SEC 186. 159. 106. -44. -200. -340. -425. -448.	FT/SEC 9 -456. 8 -451. 6 -471. 1 -527. 8 -592. 4 -686. 1 -746.	FT/SEC 5 455.9 9 472.1 4 490.6 4 543.5 3 616.7 7 689.7 7 742.5 6 760.8	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5
% SPAN 5 10 15 30 50 70 85 90	0YA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 29.570 30.240	IN 18.58( 19.11( 19.74( 21.60( 24.20( 26.88( 28.90( 30.27(	FT/SEC 0 848.4 0 846.6 0 831.5 0 729.6 0 681.5 0 631.5 0 611.5	FT/SEC 573-5 588-0 597-6 598-7 584-2 550-5 550-5 5496-1	FT/SEC 553.7 563.5 578.2 604.1 5595.8 585.8 568.2 544.5	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 550-5 523-5 496-1	FT/SEC 642.8 631.9 597.2 499.8 415.9 348.9 317.4 312.8	FT/SEC 21.5 39.7 36.4 28.3 30.3 4.8 -3.2 4.8	49.26 48.27 45.92 39.58 34.73 30.77 29.19 29.70	2.14 3.87 3.50 2.71 2.97 48 32 .55	0EGREE -18.65 -15.83 -10.46 4.14 18.47 -30.12 36.80 39.25 41.56	DEGREE 38.53 37.61 38.32 41.4( 45.42 50.33 53.6( 55.4(	FT/SEC 5 584.4 5 585.8 5 588.6 6 607.0 2 633.3 3 678.1 7 709.7 7 708.4 4 704.8	FT/SEC 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8	FT/SEC 186. 159. 106. -44. -200. -340. -425. -448. -467.	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592. 4 -686. 1 -746. 0 -758. 6 -774.	FT/SEC 5 455.5 9 472.1 4 490.6 4 543.5 3 616.7 7 742.5 6 760.6 0 778.6	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5 778.8
% SPAN 5 10 15 30 50 70 85 90 95	0YA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	IN 18.58 19.110 19.74 21.60 24.20 26.88 28.90 29.60 30.27	FT/SEC 0 848.4 0 846.6 831.5 7749.7 0 681.6 0 650.6 0 611.6 DEV	FT/SEC 573-5 588-0 597-6 598-7 589-7 569-3 550-5 523-5 496-1	FT/SEC 553.7 563.5 578.2 599.1 599.5 585.8 568.2 548.5 527.3 CAMBER	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 550-5 523-5 496-1	FT/SEC 642.8 631.9 597.2 499.8 415.9 348.9 317.4 312.8	FT/SEC 21.5 39.7 36.4 28.3 30.3 4.8 -3.2 4.8	29.19 29.26 48.27 45.92 39.58 34.73 30.77 29.19 29.48 LOSS-P	2.14 3.87 3.50 2.71 2.97 48 32 .55	-18.65 -15.83 -10.46 4.14 18.47 -30.12 36.80 39.25 41.56	DEGREE 38.53 37.61 38.32 41.40 45.43 50.33 53.60 57.34	FT/SEC 584.4 565.8 588.6 607.0 2 633.3 678.1 709.7 708.4 704.8	FT/SEC 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P	FT/SEC 186. 159. 106. -44. -200. -340. -425. -448.	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592. 4 -686. 1 -746. 0 -758.	FT/SEC 5 455.9 9 472.1 4 490.6 4 543.5 3 616.7 7 689.7 7 742.5 6 760.8	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5
% SPAN 5 10 15 30 50 70 85 90 95	OYA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 28.860 INCS DEGREE	IN 18.58(19.11(19.74(19.	FT/SEC 9 848.4 9 846.6 9 831.5 774.5 774.5 0 681.5 0 631.5 0 631.5 0 631.5 0 631.5 0 621.5 0 621.5 0 621.5 0 621.5	FT/SEC 573-5 588-0 598-7 588-7 588-7 589-7 559-5 559-5 523-5 7URN DEGREE	FT/SEC 553.7 563.5 578.2 604.1 599.5 585.8 548.5 527.3 CAMBER DEGREE	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 550-5 523-5 496-1 50LIOTY	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4	FT/SEC 21.5 39.7 36.4 28.3 30.3 -3.2 4.8 4.8 0MEGA-B	9.26 48.27 45.92 39.58 34.73 30.77 29.19 29.70 30.48 LOSS-P	2.14 3.87 3.50 2.71 2.97 32 .33 .55	0EGREE -18.65 -15.83 -10.46 4.14 18.47 30.12 36.80 39.25 41.56 P02/ P01 S	DEGREE 38.53 37.61 38.32 41.42 50.33 53.60 55.40 57.34	FT/SEC 3 584.4 565.8 583.6 607.0 2 633.3 678.1 709.7 708.4 704.8 BEFF-AD TOTAL	732.9 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC	FT/SEC 186. 159, 106. -44. -200. -340. -425. -4467. M-1	FT/SEC 9 -456. 8 -451. 5 -471. 8 -592. 4 -686. 1 -746. 0 -758. 6 -774.	FT/SEC 5 455.5 9 472.4 4 490.6 4 543.6 3 616. 7 689.7 7 742.5 6 760.6 0 778.6	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5 778.8 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	OYA-1 IN 17.720 18.350 19.070 23.970 28.860 29.570 30.240 INCS DEGREE	IN 18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60 30.27 INCM DEGREE	FT/SEC 1 848.4 846.4 831.5 729.7 681.5 0 631.5 0 631.5 0 631.5 0 631.5 0 EV DEGREE 1 18.63	FT/SEC 573-9 588-0 598-7 584-2 569-3 550-5 550-5 TURN DEGREE 47-12	FT/SEC 553.7 563.5 563.5 569.5 585.8 569.5 540.5 540.5 527.3 CAMBER DEGREE	FT/SEC 573.4 586.7 596.4 598.1 583.4 569.2 550.5 523.5 496.1 50LIOTY	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC	FT/SEC 21-5 39-7 36-3 30-3 4-8 2-3-2 4-8 0MEGA-B	DEGREE 49.26 48.52 39.58 34.73 30.77 29.19 29.70 30.48 LOSS-P TOTAL •0304	2.14 3.87 3.50 2.71 2.97 32 .33 .55 LOSS-P PROFILE	0EGREE -18.65 -15.83 -10.46 4.14.13 30.12 36.80 39.25 41.56 P02/ P01 S	DEGREE 38.53 37.61 38.32 41.42 50.33 53.60 55.40 57.34	FT/SEC 5 584.4 5 555.8 5 567.0 6 637.0 6 709.7 7 708.4 7 704.8 BEFF-AD TOTAL 0 .0000	732.9 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970	FT/SEC 186.0 159.0 104.0 -240.0 -340.0 -425.0 -446.0 -467.0 M-1	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592. 4 -686. 1 -746. 0 -758. 6 -774. M-2	FT/SEC 5 455. 9 472. 1 490. 4 543. 3 616. 7 689. 6 742. 6 778. 0 778. M'-1	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 778.8 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DYA-1 IN 17.720 19.350 19.070 23.970 25.970 28.860 29.570 30.240 INCS DEGREE26	IN 18.58(19.11(19.74(19.	FT/SEC 0 848.4 0 846.6 0 831.5 0 729.7 0 681.5 0 651.5 0 611.5 0 EV DEGREE 19.8	FT/SEC 573-5 588-0 598-7 584-2 569-3 550-5 523-5 7URN DEGREE 344-40	FT/SEC 553.7 563.5 563.5 578.2 599.5 585.8 568.2 547.3 CAMBER DEGREE 62.54 59.58	FT/SEC 573.4 586.7 598.1 598.1 583.4 569.2 550.5 523.5 496.7 2.1077	FT/SEC 642.8 631.9 597.2 499.8 415.9 348.9 317.4 312.8 310.4 0-FAC	FT/SEC 21-5 39-7 36-4 30-3 4-8 -3-2 4-8 0MEGA-B	DEGREE 49.26 48.52 39.58 34.73 30.77 29.19 29.70 30.48 LOSS-P TOTAL 0327	2.14 3.87 3.50 2.71 2.97 .48 -32 .55 LOSS-P PROFILE .0327	0EGREE -18.65 -15.83 -10.46 18.47 -30.12 -36.80 -39.25 41.56 -902/S -9585 -9572	DEGREE 38.53 37.61 38.38 41.40 45.42 50.33 53.60 55.40 0MEGA-6	FT/SEC   584.48   584.68   584.68   584.69   607.00   607	FT/SEC 732.9 740.5 760.3 797.5 831.6 892.1 927.8 921.8 921.8 EFF-P STATIC .7891	FT/SEC 186.159.106.1-440340425448467767762	FT/SEC 9 -456. 8 -451. 1 -527. 8 -592. 4 -686. 1 -746. 0 -758. 6 -774. M-2 3 .503	FT/SEC 5 455.5 4 470.6 4 543.5 3 616.5 7 689.7 7 742.5 6 760.6 0 778.6 M'-1 15 .529.54	FT/SEC 478.0 491.0 507.9 555.7 622.6 691.6 743.5 761.5 778.8 M'-2 .6431 .6503
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DYA-1 IN 17.720 18.350 19.070 23.970 28.886 29.570 30.240 INCS DEGREE26	IN 18.58(19.11(19.74(19.14)) 21.60(19.14) 24.20(19.14) 29.60(19.14) 29	FT/SEC 848.4 846.4 0 831.5 0 764.3 0 681.5 0 681.5 0 611.5 0 EV DEGREE 18.63 18.63 18.93	FT/SEC 573-3 587-6 587-6 589-7 584-2 550-5 550-5 7URN DEGREE 47-12 42-42	FT/SEC 553.7 553.2 578.2 604.1 599.5 588.2 548.5 527.3 CAMBER DEGREE 52.54 57.08	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 523-5 496-1 SOLIOTY 2-1077 2-0296 1-9470	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4738 .4511	FT/SEC 21.5 39.4 28.3 30.3 -3.2 4.8 -3.2 4.8 0MEGA-B .12840 .1312	DEGREE 49.26 48.92 39.58 34.73 30.77 29.19 29.70 30.48 LOSS-P TOTAL .0304 .0285	2-14 3-87 3-50 2-71 2-97 32 32 55 LOSS-P PROFILE -0304 -0285	DEGREE -18-65 -15-83 -10-46 4-14 18-47 30-80 39-25 41-56 P02/ P01 S -9585	DEGREE 38.53 38.32 41.46 45.42 50.33 55.46 57.34 0000 0000	FT/SEC 5 584.4 5 584.6 5 584.6 6 607.0 2 633.3 6 78.1 7 709.7 7 708.4 7 704.8 8 EFF-AD TOTAL 0 .0000 0 .0000	FT/SEC 732.9 740.5 760.3 797.5 831.6 892.1 927.8 919.4 EFF-P STATIC .7870 .8175	FT/SEC 186.159.106.1-44200340425448467762747.	FT/SEC 9 -456. 8 -451. 5 -471. 1 -527. 8 -592. 4 -686. 1 -746. 0 -758. 6 -774. M-2 .503 .503 .503	FT/SEC 5 455.5 4 472.1 4 490.6 4 543.5 3 616.7 7 742.5 6 760.6 0 778.6 M'-1 15 529 16 .529 18 .532	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5 778.8 M*-2 .6431 .6503 .6689
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15	DYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 INCS DEGREE2640	IN 18.58(19.11) 19.11(19.11) 19	FT/SEC	FT/SEC 573-9 588-0 588-0 598-7 589-7 569-3 509-3 TURN DEGREE 44-42 44-42 36-87	FT/SEC 553.7 553.2 563.2 604.1 599.5 568.2 548.5 527.3 CAMBER 0EGREE 62.54 59.58 59.58	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 550-5 523-5 496-1 50LIOTY 2.1077 2.0296 1.9470 1.7527	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 D-FAC .4928 .4738 .4511	FT/SEC 21-5 39-7 28-3 30-3 4-8 -3-2 4-8 0MEGA-B -1330 -1112 -1112	DEGREE  49.26  48.92  45.92  39.58  34.73  30.77  29.70  30.48  LOSS-P  TOTAL  .0304  .0327 .0285 .0186	DEGREE 2.14 3.67 3.57 2.71 2.97 4.48 7.32 5.55 LOSS-P PROFILE .0304 .0327 .0285 .0186	0EGREE -18.65 -15.83 -10.46 4.14 18.47 36.80 39.25 41.56 P02/ P01 S .9585 .9578 .9653	DEGREE 38,53 37,63 38,32 41,44 45,42 50,33 53,64 57,34 0ME@A-B	FT/SEC 584.4 588.6 607.0 633.3 678.1 709.7 709.7 704.8 6EFF-AD TOTAL 0.0000 0.0000 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 919.4 EFF-P STATIC .7970 .8175 .8172	FT/SEC 186. 159. 106. -44. -200. -340. -425. -467. M-1 .767. .767. .767.	FT/SEC 9 -456. 8 -451. 1 -527. 8 -592. 4 -686. 0 -758. 6 -774. M-2 3 .503. .525. .526. .525.	FT/SEC 5 455.6 9 472.1 9 490.6 4 543.6 3 616.7 7 742.1 6 760.1 0 778.1 M'-1 15 .529 .529 .532 .532 .547	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 743.5 778.8 M*-2 .6503 .6689 .7039
% SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 50	OYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 29.240 INCS DEGREE -3.07	IN 18.58(19.11) 19.11(19.11) 19	FT/SEC 848.4 846.4 831.5 729.7 681.5 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 1 18.6 1 18.6	FT/SEC 573-9 573-9 597-6 597-6 598-7 559-5 550-5 496-1 TURNEE 44-46 42-48 31-77	FT/SEC 553.7 553.7 578.2 604.1 599.5 586.2 548.5 527.3 CAMBER DEGREE 59.58 51.73 44.81	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 550-5 50LIOTY 2-1077 2-0296 1-7527 1-75484	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4738 .4511 .4057	FT/SEC 21.5 39.4 28.3 30.3 -3.2 2.9 0 MEGA-B .1330 .1112 .0654	DEGREE 49.26 48.92 39.58 34.73 29.19 29.70 30.48 LOSS-P TOTAL .0304 .0327 .0265 .0186 .0140	DEGREE 2.14 3.67 3.50 2.71 2.97 -32 .33 .55 LOSS-P PROFILE .0304 .0327 .0285 .0140	0EGREE -18.65 -15.83 -10.46 4.14 18.47 30.12 36.80 39.25 41.56 P02/ P01 S -958 -9572 -9653 -9852	DEGREE 38,53 37,63 41,44 45,42 50,33 0000 0000 00000 00000 00000	FT/SEC 5 584.4 5 588.6 6 607.0 2 633.3 6 78.1 7 709.7 7 708.4 7 704.8 BEFF-AD TOTAL 0 .0000 0 .0000 0 .0000 0 .0000	732.9 740.3 760.3 797.5 831.6 892.1 927.8 919.4 EFF-P STATIC .7970 .8873 .8172	FT/SEC 156.159.106.1-44.53405445467467767654	FT/SEC 9-456. 5-471. 5-471. 1-527. 8-592. 4-686. 1-746. 6-774. M-2 3-5166. 525. 525. 526. 526. 526. 526.	FT/SEC 5 455.6 9 472.1 490.6 4 543.9 3 616.7 7 689.1 6 742.5 6 742.5 6 7529 6 5329 6 5329 6 5325 6 547.5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	FT/SEC 478.0 491.0 507.9 555.7 622.6 691.6 743.5 778.8 M'-2 .6431 .6503 .6689 .7039
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DYA-1 IN 17.720 19.350 19.350 23.970 25.866 29.570 30.240 INCS DEGREE	IN 18.58(19.74(19.	FT/SEC 848.4 848.4 0 831.5 0 764.3 729.7 0 681.5 0 631.5 0 611.6 DEV DEGREE 18.63 16.68 16.68 13.3 613.3	FT/SEC 573-3 573-3 597-6 597-6 597-6 597-6 5590-5 496-1 TURN DEGREE 47-12 42-42 36-87 31-78	FT/SEC 553.7 553.2 578.2 604.1 599.8 5588.2 548.5 527.3 CAMBER DEGREE 52.548 57.08 51.73 44.25	FT/SEC 573-4 586-4 596-4 598-1 583-4 559-2 550-5 523-5 496-1 50LIOTY 2-1077 2-1077 1-5484 1-3868	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4511 .4057 .3646	FT/SEC 21.5 39.4 28.3 30.3 -3.2 2.9 4.8 0MEGA-B .1284 .1112 .06544 .04537	DEGREE 49.26 48.92 39.58 34.73 29.19 29.70 30.48 LOSS-P TOTAL .0304 .0140 .0140 .0140	DEGREE 2.14 3.87 2.71 2.97 2.97 -32 -33 -55 LOSS-P PROFILE 0320 0326 0186 01122	0EGREE -18-65 -15-86 -15-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9653 -9653 -9925	DEĞREE 38,53 37,61 38,32 41,40 45,42 50,33 55,40 57,34 0000 0000 0000 0000 0000 0000 0000	FT/SEC   584.4   584.4   584.6   607.0	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7870 .8175 .8175 .8175	FT/SEC 186. 159. 106. -44. -200. -425. -448. -467. M-1 .767. .7647. .704. .6609	FT/SEC 9-456.8 8-451. 5-471.1 1-527.8 8-592.4 4-686.1 1-746.0 0-758.6 -774.4 M-2 3-503.5 503.5	FT/SEC 5 455.5 4 490.6 4 543.5 3 616.6 7 689.7 7 742.5 6 760.6 0 778.6 M'-1 15 .529.6 .532.7 15 .549.6 .5	FT/SEC 478.0 491.7 507.9 555.7 622.6 671.6 743.5 761.5 778.8 M*-2 .6431 .6689 4.7039 4.7039 7.7347 .7891
% SPAN 5 10 15 30 50 95 95 95 95 90 95 95 95 96 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	OYA-1 IN 17.720 18.350 19.070 23.970 28.860 29.570 30.240 INCS DEGREE -3.07 -4.77 -7.56	IN 18.58(19.74) 19.11(19.74) 21.600(19.74) 22.68(19.74) 29.60(19.74) 2	FT/SEC 848.4 846.4 0 831.5 764.3 0 729.7 0 681.5 0 611.6 0 611.6 DEV DEGREE 1 18.6 1 13.7 6 13.7 6 13.7 6 13.7 6 13.7	FT/SEC 573-9 589-6 589-6 589-7 589-7 589-7 599-7 10RN DEGREE 440-44 440-44 360-87 310-77	FT/SEC 553.7 558.2 504.1 599.5 588.2 548.5 527.3 CAMBER 62.54 62.54 57.08 71.73 44.81 44.81	FT/SEC 573-4 586-7 598-1 583-4 569-5 523-5 496-1 SOLIOTY 2.1077 2.0276 1.9470 1.7527 1.5484 1.3868	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4738 .4511 .4057 .3660 .3453	FT/SEC 21.5 39.4 28.3 30.3 4.8 2.9 4.8 0 .1230 0 .1230 0 .04337 0 .04337	DEGREE 49.26 48.92 39.58 34.73 30.77 29.70 30.48 LOSS-P TOTAL .0304 .0324 .0120 .0140 .0140	DEGREE 2.14 3.67 3.50 2.71 2.97 2.97 3.55	0EGREE -18-65 -15-85 -10-85 -10-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9815 -9892 -9892 -9892 -9914	DEGREE 38,53 37,61 38,32 41,46 45,42 50,33 55,46 57,36 0000 00000 00000 000000 000000 0000000	FT/SEC 584.4 585.6 607.0 2633.3 709.7 708.4 704.8 BEFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8175 .8175 .8175	FT/SEC 186. 159. 106. -44. -200. -425. -448. -467. M-1 .767 .767. .704. .659. .580	FT/SEC 9-456.8 8-451.1 5-471.1 1-527.8 5-686.1 1-746.0 0-758.6 -774.4 M-2 3-503.6 503.6 525.5 528.1 516.9 529.1 516.9 529.1 529.1 530.1 540.1	FT/SEC 5 455.4 4 490.6 4 543.5 3 616.7 7 742.5 6 760.6 0 778.6 M'-1 15 .529 16 .532 15 .547 15 .568 15 .606 15 .633	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 761.5 778.8 M*-2 .6431 .6431 .6689 .7039 .7039 .7039 .7039 .7039
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DYA-1 IN 17.720 19.350 19.350 23.970 25.866 29.570 30.240 INCS DEGREE	IN 18.58(19.11) 19.11(19.11) 19	FT/SEC 848.4 846.4 729.7 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 1 18.6 1 1	FT/SEC 573-9 587-6 587-6 589-7 589-7 589-7 599-7 100 100 100 100 100 100 100 10	FT/SEC 553.2 563.2 564.2 564.5 564.5 527.3 CAMBER 62.54 59.58 59.58 44.25 45.29 45.29	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 523-5 523-5 496-1 50LIOTY 2.1077 2.1077 1.5484 1.2866 1.28554	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4738 .4513 .3465 .3465	FT/SEC 5 39.4 4 8 4 9 4 9 4 9 9 9 9 9 9 9 9 9 9 9 9	DEGREE  49.26  48.92  48.92  39.58  34.73  30.79  29.70  30.48  LOSS-P  TOTAL  .0304  .0325  .0186 .0140 .0165	DEGREE 2-14 3-87 3-50 2-71 2-97	0EGREE -18.65 -15.83 -10.46 4.14 18.47 36.40 39.25 41.56 P02/ P01 S .9585 .9585 .9653 .9815 .9892 .9925	DEGREE 38,53 37,63 38,32 41,44 45,42 50,33 553,64 57,34 0,000 0,0000 0,0000 0,0000	FT/SEC 584.4 588.6 607.0 633.3 678.1 709.7 708.4 704.8 8EFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8722 .8979 .9031 .8689	FT/SEC 186. 159. 106. -44. -200. -425. -467. M-1 767. 767. 767. .76549. .5609. .5609.	FT/SEC 9 -456. 8 -451. 1 -527. 8 -592. 4 -686. 0 -758. 6 -774. M-2 3 .503. 516. 525. 516. 525. 486. 481.	FT/SEC 5 455.6 9 472.1 9 490.6 4 543.6 3 616.7 7 742.1 6 760.1 0 778.1 15 .529 15 .532 15 .547 15 .606 15 .635 14 .630	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 743.5 778.8 M*-2 .6503 .6689 .7039 .7891 .8199 .8199
% SPAN 5 10 15 30 50 95 95 95 95 90 95 95 95 96 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	OYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 INCS DEGREE	IN 18.58(19.11) 19.11(19.11) 19	FT/SEC 848.4 846.4 729.7 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 1 18.6 1 1	FT/SEC 573-9 587-6 587-6 589-7 589-7 589-7 599-7 100 100 100 100 100 100 100 10	FT/SEC 553.7 558.2 504.1 599.5 588.2 548.5 527.3 CAMBER 62.54 62.54 57.08 71.73 44.81 44.81	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 523-5 523-5 496-1 50LIOTY 2.1077 2.1077 1.5484 1.2866 1.28554	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4738 .4513 .3465 .3465	FT/SEC 21.5 39.4 28.3 30.8 30.8 -3.2 4.8 -3.2 4.8 -3.2 4.8 -12.8 0.04347 0.04347 0.04347 0.04347 0.04347	DEGREE  49.26  48.92  39.58  34.73  30.77  29.70  30.48  LOSS-P  TOTAL  .0304 .0140 .0140 .0165 .0264 .0340	DEGREE 2.14 3.67 2.71 2.97 2.97 3.55	0EGREE -18-65 -15-85 -10-85 -10-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9653 -9815 -9892 -9914	DEGREE 38,53 37,61 38,32 41,46 45,42 50,33 55,46 57,36 0000 00000 00000 00000 00000 00000 0000	FT/SEC 584.4 585.6 607.0 2633.3 709.7 708.4 704.8 BEFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8175 .8175 .8175	FT/SEC 186. 159. 106. -444. -200. -425. -448. -467. M-1 .767. .767. .704. .5609. .5609. .5623.	FT/SEC 9 -456. 8 -451. 1 -527. 8 -592. 4 -686. 0 -758. 6 -774. M-2 3 .503. 516. 525. 516. 525. 486. 481.	FT/SEC 5 455.6 9 472.1 9 490.6 4 543.6 3 616.7 7 742.1 6 760.1 0 778.1 15 .529 15 .532 15 .547 15 .606 15 .635 14 .630	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 743.5 743.5 778.8 M*-2 .6503 .6689 .7039 .7891 .8199 .8199
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	OYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 INCS DEGREE	IN 18.58(19.74) 19.11(19.74) 21.600 24.20(19.74) 28.90(19.74) 29.60(19.74) 29.60(19.74) 4.66(19.74) 4.	FT/SEC 848.4 846.4 729.7 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 0 631.5 1 18.6 1 1	FT/SEC 573-3 573-3 597-6 597-6 597-6 597-6 5590-5 496-1 TURNEE 47-14 42-42 43-42	FT/SEC 553.7 553.2 578.2 604.1 599.5 588.2 548.5 527.3 CAMBER DEGREE 2 59.54 57.08 51.73 44.25 45.29 45.29 46.76	FT/SEC 573-4 586-7 596-4 598-1 583-4 569-2 523-5 523-5 496-1 50LIOTY 2.1077 2.1077 1.5484 1.2866 1.28554	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4511 .4057 .3463 .3453 .3663	FT/SEC 21.5 39.4 28.3 30.8 30.8 -3.2 4.8 -3.2 4.8 -3.2 4.8 -12.8 0.04347 0.04347 0.04347 0.04347 0.04347	DEGREE  49.26  48.92  39.58  34.73  30.77  29.70  30.48  LOSS-P  TOTAL  .0304 .0140 .0140 .0165 .0264 .0340	DEGREE 2.14 3.67 2.71 2.97 2.97 3.55	0EGREE -18-65 -15-85 -10-85 -10-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9653 -9815 -9892 -9914	DEGREE 38,53 37,61 38,32 41,46 45,42 50,33 55,46 57,36 0000 00000 00000 00000 00000 00000 0000	FT/SEC 584.4 585.6 607.0 2633.3 709.7 708.4 704.8 BEFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8175 .8175 .8175	FT/SEC 186. 159. 106. -444. -200. -425. -448. -467. M-1 .767. .767. .704. .5609. .5609. .5623.	FT/SEC 9-456. 8-451. 5-471. 1-527. 8-592. 4-686. 1-746. 0-758. 6-774. M-2 3-503. 6-55. 528. 516. 525. 528. 486. 48	FT/SEC 5 455.6 9 472.1 9 490.6 4 543.6 3 616.7 7 742.1 6 760.1 0 778.1 15 .529 15 .532 15 .547 15 .606 15 .635 14 .630	FT/SEC 478.0 491.7 507.9 555.7 622.6 6743.5 761.5 778.8 M*-2 .6431 .66503 .6689 .7039 .7347 .7347 .7347 .7347 .7347 .8199 .8125
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	OYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 INCS DEGREE	IN 18.58(19.19.11) 19.11(19.74(19.19.19.19.19.19.19.19.19.19.19.19.19.1	FT/SEC 848.4 846.4 0 831.5 764.3 769.6 0 681.5 0 681.5 0 611.9 DEV DEGREE 1 18.63 1 13.76 1 13.76 1 13.76 1 14.72 1 16.88	FT/SEC 573-3 587-6 587-6 589-6 584-2 550-5 550-5 496-1 TURN N DEGREE 44-42 36-87 310-2 29-31 29-31 WC/A-1	FT/SEC 553.2 558.2 509.5 509.5 5588.2 5588.2 548.5 527.3 CAMBERE 62.54 62.54 62.54 63.4	FT/SEC 573-4 586-4 598-1 598-1 589-2 550-5 523-5 496-1 SOLIOTY 2-1077 2-1077 2-1077 1-5484 1-2866 1-2554 1-2271	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4511 .4057 .3463 .3453 .3663	FT/SEC 21.5 39.4 28.3 30.8 30.8 -3.2 4.8 -3.2 4.8 -3.2 4.8 -12.8 0.04347 0.04347 0.04347 0.04347 0.04347	DEGREE  49.26  48.92  39.58  34.73  30.77  29.70  30.48  LOSS-P  TOTAL  .0304 .0140 .0140 .0165 .0264 .0340	DEGREE 2.14 3.67 2.71 2.97 2.97 3.55	0EGREE -18-65 -15-85 -10-85 -10-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9653 -9815 -9892 -9914	DEGREE 38,53 37,61 38,32 41,46 45,42 50,33 55,46 57,36 0000 00000 00000 00000 00000 00000 0000	FT/SEC 584.4 585.6 607.0 2633.3 709.7 708.4 704.8 BEFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8175 .8175 .8175	FT/SEC 186. 159. 106. -444. -200. -425. -448. -467. M-1 .767. .767. .704. .5609. .5609. .5623.	FT/SEC 9-456. 8-451. 1-527. 8-592. 4-686. 0-758. 6-774. M-2 3-503. 5-25. 5-28. 5-29. 4-68. 4-	FT/SEC 5 455.4 4 490.6 4 543.5 3 616.7 7 742.5 6 760.6 0 778.6 M'-1 15 .529 15 .529 15 .547 15 .568 15 .635 14 .630 16 .625	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 6743.5 761.5 778.8 M*-2 .6431 .6503 .6689 .7039
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	OYA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 INCS DEGREE	IN 18.58(19.19.11) 19.11(19.74(19.19.19.19.19.19.19.19.19.19.19.19.19.1	FT/SEC 848.4 846.4 764.5 764.5 769.6 661.6 0 631.5 0 631.5 0 631.5 1 18.6 1 18.6 1 13.7 1 14.7 1 16.8 1 16.8 1 wCOR-1	FT/SEC 573-3 587-6 587-6 589-6 584-2 550-5 550-5 496-1 TURN N DEGREE 44-42 36-87 310-2 29-31 29-31 WC/A-1	FT/SEC 553.2 558.2 509.5 509.5 5588.2 5588.2 548.5 527.3 CAMBERE 62.54 62.54 62.54 63.4	FT/SEC 573-4 586-4 589-4 598-1 583-4 550-5 523-5 496-1 SOLIOTY 2.1077 2.1077 2.1077 2.1077 1.5484 1.2866 1.2856 1.2856 1.2856 1.2271	FT/SEC 642.8 631.9 597.2 499.8 415.9 317.4 312.8 310.4 0-FAC .4928 .4511 .4057 .3463 .3463 .3926	FT/SEC 21.5 39.4 28.3 30.8 30.8 -3.2 4.8 -3.2 4.8 -3.2 4.8 -12.8 0.04347 0.04347 0.04347 0.04347 0.04347	DEGREE  49.26  48.92  39.58  34.73  30.77  29.70  30.48  LOSS-P  TOTAL  .0304 .0140 .0140 .0165 .0264 .0340	DEGREE 2.14 3.67 2.71 2.97 2.97 3.55	0EGREE -18-65 -15-85 -10-85 -10-86 4-14 18-47 30-12 36-80 39-25 41-56 P02/ P01 S -9585 -9653 -9815 -9892 -9914	DEGREE 38,53 37,61 38,32 41,46 45,42 50,33 55,46 57,36 0000 00000 00000 00000 00000 00000 0000	FT/SEC 584.4 588.6 607.0 633.3 678.1 709.7 708.4 704.8 8EFF-AD TOTAL 0.0000	FT/SEC 732.9 740.3 760.3 797.5 831.6 892.1 927.8 921.8 919.4 EFF-P STATIC .7970 .8175 .8175 .8175 .8175 .8175	FT/SEC 186. 159. 106. -444. -200. -425. -448. -467. M-1 .767. .767. .704. .5609. .5609. .5623.	FT/SEC 9-456. 8-451. 1-527. 8-592. 4-686. 0-758. 6-774. M-2 3-503. 5-25. 5-28. 5-29. 4-68. 4-	FT/SEC 5 455.5 4 490.6 4 543.5 3 616.7 7 742.5 6 760.6 0 778.6 M'-1 15 529 16 532 15 547.5 16 606 15 633.4 16 633.4 16 635 17 645 18 630.6 18 635 18 635 1	FT/SEC 478.0 491.7 507.9 555.7 622.6 691.6 6743.5 761.5 778.8 M*-2 .6431 .6503 .6689 .7039

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 80% of Design Speed

70 m	on.						00/0	Or Des	aign St	Jeeu								
ROT																		
	DIA-1	DIA=2	V-1	V-2	VH-1	VM=2	Vi-1	V0-2	n=1	н=2	B!=1	31-2		V • -2	VO'-1	V0 -2	<u>u-1</u>	U-2
% SPAN	IN I	IN F	T/SEC F	T/SEC F	TYSEC F	T/SEC F	てノSEじ F	T/SEC D	EGREE U	EGRSE D	EGREE .	JEGREE F	T/SEC F	T/SEC F	T/SEC F	T/SEC 1	FT/SEC #	FT/SEC
5		16.030						706.4				-27.28						
10		16.790						684.0	•00			-24.13	598.7		-363.9	250.7		
15		17.580			484.7			640.9	•00			-18.44					391.5	
30		19.910		769.5				533.8	• 10	43.90		-2.01	692.6		-471.7	20.0		
50		23.090		683.4				436.1	00			16.84					572.6	
70		26.260				502.5		362.9	.00			32.00					667.9	
85		58.610			535.6			332.6	.00	34.76		. 40.24 43.66	907.6 925.5		-734.2		756.6	738.3 759.0
90		29.410						328.9	•00	36 - 14			942.7					
95	20.120	30.180	232.2	231.4	532.2	420.0	• 0	325.6	• 00	37.75	55.63	47.13	74201	010.4	-//0.1	-433+2	//D.T	77040
		T* NA	CEV	THOM O	A	OL TATY	DEFIC C	MEGA-A	I ASCOR	1 455-0	P02/	EFF-P E	FF-AD (	MEGA-D	M-1	M_2	M'-1.	M'-2
% SPAN	DEGREE &	SECRETE L	CGSEE D	- COE	Fig	·V	<u> </u>		TOTAL	PARTIE	P01	TOTAL T	OTAL SI	IOCK		44-1		
5	-4.98	1.93			71.03	2.4325	. 1689	. 1538	6281			9160			.4259	.8273	.5275	.5830
10	-4.04	2.60			66 - 05			1099	.0219		1.3468		.9336		4353			
15	-3.30	2.92			62.94		3064		0163		1.3463		9506		4440	.7715		
30	-2.29	3.37			53.26		4075	0249	0065			9789	.9780		4643	6916		
50	-1.17	3.80			39.13			10277				9706	49695	0000			7138	
70	•13		11.93			1.5345	.4444				1.2907		.9587	.0000		.5504		
85	•65		10.29				4352	. 6578	+0153		1.2762		.9154	.0000	4890	-5164	.8334	•5560
90	•76		11.39				.4522	• 0996				.8573	.8526	.0000	.4884	+4926	.8495	-5501
95	•61	3.98	12.98	8.50	17.48	1.3891	.4684						•7907	.0000	.4877	.4680	.8644	.5441
		NC0S-T					JFF-AU.	EFF-P		_,				S	TA-1 51	A-2 5	LANT-1	SLANT-2
		'₽PM <b>∟</b> 8			T01	P01	*	%								0	EGREE 1	DEGREE
				JET														
		5714.0	153.79	34.66	1.0839	1.3029	93.696	93.93							5.0	6.0	86.05	95.02
STA	TOR																	
STA	TOR								_									
	DIA=1	-LIA-2	V=1	V=2		<u> </u>	<u> </u>	<u> </u>	Bel	8=2 >F49FF	<u>Riej</u>	91=2 USANES	Viel Fraces	<u> </u>	<u> </u>	V01-2	<u>ijoj</u> Er <i>ic</i> Er	( <del> -2</del>
% SPAN	DIA-1	Ir.	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DE <del>G</del> RÉE I	DEGREE	DEGREE	DEGREE	FT/SEC I	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN	DIA=1 IN 17-720	II. 18.580	FT/SEC 838.2	FT/SEC	FT/SEC	FT/SEC 560.3	FT/SEC 637.8	FT/SEC	DEGREE 49.55	DEGREE 1.93	DEGREE -18.3	DEGREE 39.41	FT/SEC   573.0	FT/SEC   725.3	FT/SEC 180.5	FT/SEC	FT/SEC 5 457.3	FT/SEC 479.5
% SPAN 5 10	DIA=1 IN 17-720 18-350	I <sub>i</sub> , 1 18.580 19.110	FT/SEC <u>838.2</u> 836.0	560+8 573+7	FT/SEC 543.8 553.2	FT/SEC 560.3 572.5	FT/SEC 637.8 626.7	FT/SEC 19.0 37.3	DEGREE 49.55 48.56	DEGREE 1.93 3.73	DEGREE -18.34	UE <b>GRE</b> E 39.41 7 38.52	573.0 574.2	FT/SEC   725.3 731.8	FT/SEC 180.5 153.1	FT/SEC -460.!	FT/SEC 5 457.3 6 473.5	FT/SEC 479.5 493.2
% SPAN 5 10 15	DIA=1 IN 17-720 18-350	Ii. 1 18.580 1 19.110 1 19.740	FT/SEC 838.2 836.0 820.6	FT/SEC 560-8 573-7 583-3	FT/SEC 543.8 553.2 567.6	FT/SEC 560+3 572+5 582+2	FT/SEC 637.8 626.7	FT/SEC 19.0 37.3 35.2	DEGREE 49.55 48.56	DEGREE 1.93 3.73 3.46	-18.30 -15.47 -10.00	UEGREE 5 39.41 7 38.52 4 39.16	573.0 574.2 577.0	FT/SEC   725.3 731.8 750.9	FT/SEC 180.5 153.1 100.3	FT/SEC -460.! -455.6 -474.2	FT/SEC 5 457.3 8 473.5 2 492.1	FT/SEC 3 479.5 5 493.2 L 509.4
% SPAN 5 10 15 30	DIA=1 IN 17.72( 18.35( 19.07( 21.14(	I <sub>f</sub> , 1 18-580 19-110 1 19-740 21-600	FT/SEC 838.2 836.0 820.6 770.7	FT/SEC 560-8 573-7 583-3 587-7	FT/SEC 543.8 553.2 567.6 591.6	FT/SEC 560.3 572.5 582.2 587.0	FT/SEC 637.8 626.7 592.4 502.9	FT/SEC 19.0 37.3 35.2 29.0	DEGREE 49.55 48.56 46.22 40.35	DEGREE 1.93 3.73 3.46 2.83	DEGREE -18.3( -15.4) -10.0( 4.0)	UEGREE 5 39.41 7 38.52 4 39.16 9 41.98	573.0 574.2 577.0 574.4	FT/SEC 725.3 731.8 750.9 789.9	FT/SEC 180.5 153.1 100.3 -42.6	FT/SEC -460.! -455.6 -474.2 -528.4	FT/SEC 5 457.3 8 473.5 2 492.1 4 545.5	FT/SEC 3 479.5 5 493.2 1 509.4 5 557.4
% SPAN 5 10 15	DIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-97(	I <sub>f</sub> , 1 18-580 19-110 1 19-740 21-600	FT/SEC 838.2 836.0 820.6 770.7 723.6	FT/SEC 560+8 573+7 583+3 587+7 573+2	FT/SEC 543.8 553.2 567.6 591.6 589.1	FT/SEC 560.3 572.5 582.2 587.0 572.4	FT/SEC 637.8 626.7 592.4 502.9 420.0	FT/SEC 19.0 37.3 35.2 29.0 31.0	DEGREE 49.55 48.56 46.22 40.35	DEGREE 1.93 3.73 3.46 2.83	DEGREE -18.3 -15.4 -10.0 4.0	DEGREE 3 39.41 7 38.52 4 39.16 9 41.98 7 46.02	573.0 574.2 577.0 594.4 622.7	FT/SEC 725.3 731.8 750.9 789.9 824.7	FT/SEC 180.5 153.1 100.3 -42.6 -198.5	FT/SEC -460.! -455.6 -474.2 -528.4 -593.!	FT/SEC 5 457.3 6 473.5 2 492.3 6 545.5 6 618.6	FT/SEC 3 479.5 5 493.2 5 557.4 6 624.5
% SPAN 5 10 15 30 50 70	DIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-97( 26-79(	Ii, 1 18.580 1 19.110 1 19.740 1 21.600 1 24.200 1 26.680	FT/SEC 838-2 836-0 820-6 770-7 723-6 678-6	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3	FT/SEC 543.8 553.2 567.6 591.6 589.1	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1	FT/SEC 637.8 626.7 592.4 502.9 420.0	FT/SEC 19.0 37.3 35.2 29.0 31.0	DEGREE 49.55 48.56 46.22 40.35 35.47 31.60	DEGREE 1.93 3.73 3.46 2.63 3.10	DEGREE -18.3( -15.4) -10.0( 4.0) -18.5( 30.1)	DEGREE 39.41 7 38.52 4 39.16 9 41.98 7 46.02 1 50.56	573.0 574.2 577.0 594.4 622.7 668.9	FT/SEC 725.3 731.8 750.9 789.9 824.7 883.8	FT/SEC 180.5 153.1 100.3 -42.6 -198.5	FT/SEC -460 -1 -455 -8 -474 -2 -528 -4 -593 -1	FT/SEC 5 457.3 6 473.5 2 492.1 4 545.5 6 618.6 7 691.4	FT/SEC 3 479.5 5 493.2 1 509.4 5 557.4 6 624.5 6 693.7
% SPAN 5 10 15 30 50	DIA=1 IN -17-72( 18-35( -19-07( 21-14( -23-97( 26-79( 28-86(	I <sub>f</sub> , 1 18-580 19-110 1 19-740 21-600	FT/SEC 838-2 836-0 820-6 770-7 723-6 678-6 651-8	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3 547-2	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2	FT/SEC 637.8 626.7 592.4 502.9 420.0 355.6	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0	DEGREE 49.55 48.56 46.22 40.35 35.47 31.60	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12	-18.30 -15.47 -15.47 -10.00 -4.09 -8.57 -30.17	DEGREE 3 39.41 7 38.52 4 39.16 9 41.98 7 46.02	573.0 574.2 577.0 574.4 622.7 668.9 699.1	FT/SEC   725.3 731.8 750.9 789.9 824.7 883.8 922.5	FT/SEC 180.5 153.1 100.3 -42.6 -190.5 -335.7 -415.2	FT/SEC -460.! -455.6 -474.2 -528.4 -593.! -682.7	FT/SEC 5 457.3 8 473.5 2 492.1 8 545.5 6 18.6 7 691.4 6 744.8	FT/SEC 3 479.5 5 493.2 1 509.4 5 557.4 6 624.5 6 693.7
% SPAN 5 10 15 30 50 70 85	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	Ii, 118.580 19.110 119.740 21.600 24.200 26.880 128.900	FT/SEC 838.2 836.0 820.6 770.7 723.6 678.6 651.8 631.3	FT/SEC 	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9 562.3	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5	FT/SEC 637-8 626-7 592-4 502-9 420-0 355-6 329-6	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0	DEGREE 49.55 48.56 46.22 40.35 35.47 31.60 30.38 31.20	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12	DEGREE -18-36 -15-4 -10-06 -4-09 	UEGREE 39.41 7 38.52 4 39.16 9 41.98 7 46.02 1 50.56 4 53.62 4 55.57	FT/SEC   573.0 574.2 577.0 594.4 622.7 668.9 699.1 694.4	FT/SEC   725.3 731.8 750.9 789.9 824.7 883.8 922.5 915.5	FT/SEC 180.5 153.1 100.3 -42.6 -198.5 -335.7 -415.2 -436.2	FT/SEC -460.! -474.2 -528.4 -593.! -682.7 -742.6	FT/SEC 5 457.3 8 473.5 2 492.1 9 545.5 6 618.6 7 691.4 6 744.8	FT/SEC 1 479.5 5 493.2 1 509.4 5 557.4 6 624.5 6 693.7 9 745.8
% SPAN 5 10 15 30 50 70 85 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	16, 128-580 19-110 129-740 121-600 128-200 128-900 129-600	FT/SEC 838.2 836.0 820.6 770.7 723.6 678.6 651.8 631.3	FT/SEC 	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9 562.3 540.0	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4	FT/SEC 637.8 626.7 592.4 502.9 420.0 355.6 329.6 324.9	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 40.2	DEGREE 49.55 48.56 46.22 40.35 35.47 31.60 31.20 31.20	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34	DEGREE -18.3( -15.4) -10.0( -4.0) -38.5( -30.1) -36.4( -38.9) -41.4(	UE GREE 5 39.41 7 38.52 4 39.16 9 41.98 7 46.02 1 50.56 5 55.57 5 57.75	FT/SEC   573.0 574.2 577.0 594.4 622.7 668.9 699.1 687.9	FT/SEC 725-3 731-8 750-9 789-9 824-7 883-8 922-5 915-5	FT/SEC 180.5 153.1 100.3 -42.6 -198.5 -335.7 -415.2 -436.2	FT/SEC -460.! -474.2 -528.4 -593.! -682.7 -742.6	FT/SEC 5 457.1 8 473.5 2 492.1 5 5 618.6 6 618.6 7 691.4 6 763.4	FT/SEC 3. 479.5 5. 493.2 5. 509.4 5. 557.4 6. 624.5 693.7 745.8 1 763.9 781.2
% SPAN 5 10 15 30 50 70 85 90 95	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	16, 128-580 19-110 129-740 121-600 128-200 128-900 129-600	FT/SEC 838.2 836.0 820.6 770.7 723.6 678.6 651.8 631.3	FT/SEC 	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9 562.3 540.0	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4	FT/SEC 637.8 626.7 592.4 502.9 420.0 355.6 329.6 324.9	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 40.2	DEGREE 49.55 48.56 46.22 40.35 31.60 31.20 32.22	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34 .99 1.20	DEGREE -18.3( -15.4) -15.4( -10.0) 4.0( -18.5) -30.1( -36.4) -36.4( -41.4)	UE GREE 39.41 7 38.52 6 9 41.98 7 46.02 1 50.56 6 53.62 6 55.57 5 57.75	573.0 574.2 574.2 574.6 594.4 622.7 668.9 699.1 694.4 687.9	FT/SEC 725.3 731.8 759.9 789.9 824.7 883.8 922.5 915.5 911.6	FT/SEC 180.5 153.1 100.3 -42.6 -198.5 -335.7 -415.2 -436.2	FT/SEC -460.! -474.2 -528.4 -593.! -682.7 -742.6	FT/SEC 5 457.3 8 473.5 2 492.1 9 545.5 6 618.6 7 691.4 6 744.8	FT/SEC 1 479.5 5 493.2 1 509.4 5 557.4 6 624.5 6 693.7 7 745.8 1 763.9
% SPAN 5 10 15 30 50 70 85 90 95	DIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-97( 26-79( 28-86( 29-57( 30-24( INCS GREE	II, 18-580 1 19-110 1 19-740 0 21-600 0 24-200 0 26-880 1 28-900 1 29-600 1 30-271 INCA	FT/SEC 838-2 836-0 820-6 770-7 723-6 678-6 651-8 631-3 609-4 DEV	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3 547-2 517-6 486-5 TURN DEGREE	FT/SEC 543-8 553-2 567-6 591-6 591-6 577-9 562-3 540-0 515-5	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY	FT/SEC 637.8 626.7 592.4 502.9 420.0 355.6 329.6 329.6	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 8.9 10.2	DEGRÉE 49.55 48.56 46.22 40.35 31.60 30.38 31.20 32.22 LOSS-P	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34 .99 1.20	DEGREE -18.3( -15.4) -15.4( -10.0) -4.0( -4.0) -4.5( -36.4) -36.4( -38.9) -41.4( -902/ -901 9	UE GREE 5 39.41 7 38.52 2 39.16 9 41.98 7 46.02 1 53.62 4 55.57 5 57.75 OMFSA-R	FT/SEC   573.0   574.2   574.4   622.7   668.9   694.4   687.9   EFF-AD   TOTAL   5	FT/SEC 725.3 731.8 750.9 789.9 824.7 883.8 922.5 915.5 911.6	FT/5EC 180.5 153.1 100.3 -42.6 -190.5 -335.7 -415.2 -436.2 -455.5	FT/SEC +460.! -455.8 -474.4 -593.! -682.7 -742.6 -770.9	FT/SEC 5 457.3 6 473.5 2 492.1 4 545.5 6 16.6 7 691.4 6 744.6 0 763.1 9 760.4	FT/SEC 1 479.5 479.5 593.2 599.4 557.4 624.5 693.7 745.8 763.9 781.2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-97( 26-79( 28-85( 30-24( 1NCS GREE	If, 18-580 19-110 19-740 0 21-600 0 4-200 0 26-880 0 29-600 0 30-273 INCA UEGREE	FT/SEC 836.2 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 18.42	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3 547-2 517-6 486-5 TURN DEGREE 47-62	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY	FT/SEC 637-8 626-7 592-4 502-9 420-0 355-6 326-9 324-9	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 8.9 10.2 0MEGA=B	DESREE 49.55 48.56 48.56 48.35 35.47 31.60 30.38 31.20 32.22 LOSS-P TOTAL	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 3.46	DEGREE -18.3( -15.4) -15.4) -10.0( -4.0) -4.5) -30.1( -36.4) -36.4( -36.9) -41.4( -20.1) -20.	UE GREE 5 39.41 7 38.52 2 39.16 9 41.98 7 46.02 50.56 4 53.62 4 55.57 5 57.75 57.75	FT/SEC   573.0   574.2   574.4   622.7   668.9   694.4   687.9   EFF-AD   TOTAL   10000	FT/SEC 725.3 731.8 750.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC .7986	FT/SEC 180.5 153.1 100.3 -42.6 -190.5 -335.7 -415.2 -436.2 -455.5 M-1	FT/SEC -460.! -455.! -474.2 -593.! -682.7 -742.! -755.! -770.9	FT/SEC 5 457.3 473.5 2 492.1 5 545.5 6 18.6 7 691.4 7 744.6 7 763.1 9 780.4 M'-1	FT/SEC 1 479.5 493.2 509.4 557.4 624.5 693.7 745.8 763.9 781.2 M'-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	OIA=1 IN 17-72( 18-350 19-07( 21-14( 23-97( 28-86( 29-57( 30-24( INCS GREE -02-65(	In. 18-580 19-110 19-740 21-600 24-200 1 28-900 1 29-600 1 30-270 INCA USGREE 2 3-99	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 19.69	FT/SEC 560.8 573.7 583.3 587.7 573.2 561.3 547.2 517.6 486.5 TURN DEGREE 47.62 44.83	FT/SEC 543.8 553.2 567.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303	FT/SEC 637.8 626.7 592.4 502.9 420.0 355.6 326.9 324.9 D=FAC	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 8.9 10.2 0MEGA-B	DESREE 49.55 48.56 46.22 40.35 31.60 32.22 LOSS-P TOTAL .0306 .0331	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34 .99 1.20 LOSS-P PROFILE 0331	DEGREE = 18.3( = 15.4) = 15.4 = 10.0( 4.0) - 40.5 - 30.1) - 36.4( - 36.4) - 41.4( - PO2/ - 95.7( - 95.7)	UEGREE 5. 39.41 7. 38.52 4. 39.16 9. 41.98 7. 46.02 4. 50.56 4. 53.62 4. 55.57 5. 57.75 OMFSA-8 HOCK 4. 0000	FT/SEC   573.0 574.2 577.0 594.4 622.7 668.9 699.1 694.4 687.9 EFF-AD TOTAL S	FT/SEC 725.3 731.8 750.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC .7986 .7903	FT/5EC 180.5 153.1 100.3 -42.6 -190.5 -335.7 -415.2 -455.5 M-1	FT/SEC -460.! -454.6 -528.4 -593.! -682.7 -742.6 -770.5 M-2 .4916.5033	FT/SEC 5 457.3 473.5 2 492.1 5 515.6 6 18.6 7 691.4 7 691.4 7 763.8 9 763.8 9 763.8 9 763.8	FT/SEC 1 479.5 3 493.2 509.4 5 557.4 6 624.5 6 693.7 745.8 1 763.9 781.2 M'-2 0 .6358 6420
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15	OIA=1 IN 17-72( 18-350 19-07( 21-14( 23-97( 26-79( 29-57( 30-24( INCS GREE -02 -69	In. 18-580 19-110 19-740 21-600 24-200 28-900 29-600 1-28-900 1-28	FT/SEC 836.0 820.6 770.7 723-6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9	FT/SEC 560.8 573.7 583.3 587.7 573.2 517.6 486.5 TURN DEGREE 47.62 44.83 42.75	FT/SEC 543.8 553.8 557.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53 59.56	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477	FT/SEC 637-8 626-7 592-4 502-9 420-0 329-6 329-6 324-9 D=FAC -4833 -4601	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 3.2 8.9 10.2 0MEGA=B	DESREE 99.55 48.56 48.56 48.56 40.35 35.47 31.60 30.38 31.20 32.22 LOSS-P TOTAL .0331 .0295	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34 .99 1.20 -LOSS-P PROFILE .03314 03311 b285	DEGREE -18.3 -15.4 -15.4 -10.9 4.0 4.0 38.5 30.1 36.4 38.9 41.4 P02/ P015 -957 -966	UE GREE 5. 39.41 7 38.52 4 39.16 9 41.98 7 46.05 6 50.56 5 57.75 5 57.75 6 HOCK 1 1000 0 10	FT/SEC   573-0 574-2 577-0 594-4 622-7 668-9 699-1 694-4 687-9 EFF-AD TOTAL S	FT/SEC   725.3   731.8   750.9   789.9   824.7   83.8   922.5   915.5   911.6   EFF-P   STATIC   7986   .7903   .8187	FT/SEC 180.5 153.1 100.3 -42.6 -198.5 -335.7 -415.2 -455.5 M-1 .7571 .7572 .7375	FT/SEC -460.1 -455.6 -474.2 -528.4 -593.1 -682.7 -742.6 -770.5 M-2 .4916 .5033 .5126	FT/SEC 5 457.2 6 477.2 2 492.1 5 45.5 6 10.4 6 763.1 7 691.4 6 763.1 7 780.4 M'-1 6 .5160 3 .5160 5 .5215	FT/SEC 1 479.5 493.2 1 509.4 5 557.4 6 624.5 6 745.8 1 763.9 7 781.2 M'-2 0 .6358 6420 6599
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30	DIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-97( 26-79( 28-86( 29-57( 30-24( 1NCS GREE -02 -05( 10-24( 10	In. 18.580 19.110 19.740 21.600 24.200 1.28.490 1.29.600 1.30.271 INC. UEGREE 2.3.49 4.41 7.2.55	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 0EV DEGREE 18.42 19.69 18.9	FT/SEC 360.8 573.7 583.3 587.7 573.2 561.3 547.6 486.5 TURN DEGREE 44.83 42.75 37.52	FT/SEC 543.8 553.2 567.6 591.6 577.9 540.0 515.5 CAMBER DEGREE 62.53 59.56 51.72	FT/SEC 560.3 572.5 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532	FT/SEC 637-8 626-7 592-9 420-0 359-6 329-6 329-6 324-9 0-FAC -4833 -4833 -4150	FT/SEC 19-0 37-3 35-2 29-0 31-0 11-0 8-9 10-2 0MEGA=B -1293 -1345 -1345 -0637	DESREE 49.55 48.56 48.52 40.35 31.60 30.38 31.20 32.22 LISS-P TOTAL .0306 .0331 .0285 .0181	DEGREE 1.93 3.73 3.46 2.83 3.10 1.12 .34 .99 1.20 LOSS-P PROFILE .0304 .0331 .0285 .0181	DEGREE -18.3 -15.4 -10.0 -4.0 -3.5 -30.1 -36.4 -10.4 -10.0 -3.5 -30.1 -36.4 -36.5 -30.1 -36.5 -3	DEGREE 39.41 39.41 39.16 41.98 7 46.02 150.56 57.75 57.75 57.75 6.0000 1.0000 150.00	FT/SEC   573.0   574.2   574.2   574.4   622.7   668.9   694.4   687.9   EFF-AD   TOTAL   0000   0000   0000   0000   00000	FT/SEC 725-3 731-8 750-9 789-9 824-7 883-8 922-5 915-5 911-6 EFF-P STATIC -7903 -8187 -8771	FT/5EC 180.5 153.1 190.3 -42.6 -198.5 -355.7 -415.2 -455.5 M-1 .7571 .7522 .7375 .6971	FT/SEC =4601 = 455.4 = 528.4 = 528.4 = 5293.1 = 682.7 = 770.5 = 770.5 = 4916.503.5126.5126.5126.5126.5126.	FT/SEC 5 457.2 6 457.2 2 492.1 4 545.5 6 10.6 7 691.4 6 763.1 7 780.4 M'-1 6 .5160 5 .5185 6 .5215	FT/SEC 1 479.5 479.5 493.2 1 597.4 5 557.4 6 693.7 745.8 1 763.9 781.2 M'-2 6420 6420 6420 6420 65.659
% SPAN 5 10 15 30 95 90 95 \$\$ \$\$ \$\$ \$\$ 10 15 30 50 50 \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	OIA=1 IN 17-72( 18-350 19-07( 21-14( 23-97( 26-79( 28-86( 29-57( 30-24( 1)CS GREE -02 -05 -05 -05 -05 -05 -05 -05 -05 -05 -05	In. 18-580 19-110 19-740 21-600 21-600 28-900 29-600 1-20-27J	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9 16.8	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3 547-2 517-6 486-5 TURN DEGREE 44-83 42-75 37-52 37-32	FT/SEC 543-8 553-2 567-6 591-6 589-1 577-9 562-3 540-0 515-5 CAMBER DEGREE 62-53 59-56 51-72 44-79	FT/SEC 560.3 572.5 582.2 587.0 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532	FT/SEC 637-8 626-7 592-4 502-9 420-0 355-6 329-6 324-9 D=FAC -5016 -4833 -4601 -3802	FT/SEC 17.0 37.3 35.2 29.0 31.0 11.0 6.9 10.2 0MEGA=B .1293 .1345 .1113 .0637	DESREE 99.55 48.56 46.22 40.35 31.40 30.38 31.20 32.22 LISS-P TOTAL .0386 .0331 .0285 .0181 .0138	DEGREE 1.93 3.73 3.46 2.63 1.12 3.49 1.20 1.20 1.055-P PROFILE 0.0331 0.285	DEGREE	UEGREE 5.39.41 7.38-52 4.39.16 9.41-98 7.46.02 4.50-56 4.53-62 4.55-57 5.57-75 0MF8A=8 HOCK 6.0000 6.0000 6.0000	FT/SEC   573-0 574-2 577-0 594-4 622-7 668-9 699-1 694-4 687-9 FFF-AD TOTAL .0000 .0000 .0000	FT/SEC   725.3   731.8   750.9   789.9   789.9   789.9   789.9   789.5   7911.6   7903	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -198.5 -415.2 -455.5 M-1 -7571 .7522 .7375 .6971	FT/SEC -460s -455.6 -479.6 -528.4 -593.1 -742.6 -770.5 -770.5 -770.5 -512c -5125.5 -5155.5	FT/SEC 5 457.13 6 477.13 2 492.11 4 545.5 5 618.6 7 691.4 6 744.6 7 780.4 M'-1 6 .5180 5 .5215 6 .5215 7 .53580	FT/SEC 1 479.5 3 493.2 509.4 5 557.4 6 624.5 6 624.5 7 63.9 7 745.8 7 745.8 7 745.8 7 63.9 7 745.8 6 63.9 6 63.9 6 63.9 6 63.9 6 63.9
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 70	OIA=1 IN 17-72( 18-35) 19-07( 21-14( 23-97) 28-86( 29-57) 30-24( INCS GREE -069 -08-2-2-1 -5-93	In. 18-580 19-110 19-740 21-600 21-600 1-28-900	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEV DEGREE 18.42 19.69 16.8 13.9 15.9	FT/SEC 	FT/SEC 543.8 553.8 557.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53 59.56 51.72 44.25	FT/SEC 560+3 572+5 582+2 587+0 561+1 547+2 517+5 486-4 SOLIDIY 2+1081 2+0303 1+9477 1-7532 1-5486 1-3869	FT/SEC 626.7 592.4 502.9 420.0 355.6 329.6 324.9 D=FAC .4601 .4150 .355.6	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 2 8.9 10.2 0MEGA=B .1293 .1345 .1113 .0637 0429 .0317	DESREE 99.55 48.56 48.56 48.22 40.35 31.60 30.38 31.20 32.22 LOSS-P TOTAL 9306 0331 0285 0181 0118	DEGREE 1.93 1.93 2.83 3.10 1.12 3.99 1.20 -LOSS-P PROFILE 0331 0285 0181 -0138	DEGREE	UEGREE 5 39.51 7 38.52 4 39.16 9 41.98 7 46.02 5 55.57 5 57.75 0MFSA-8 HOCK - 0000 0 - 0000 0 - 0000	FT/SEC   573-0 574-2 577-0 594-4 622-7 668-9 699-1 694-4 687-9 EFF-AD TOTAL S 0000 0000 0000 0000	FT/SEC 725.3 731.8 750.9 789.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC 7986 .8187 .8771 .9012	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -436.2 -455.5 M-1 .7571 .7522 .7375 .6971 .6064	FT/SEC -460 s -460 s -479 s -528 s -528 s -528 s -742 s -755 s -770 s -4916 s -5033 s -5126 s -5186 s -5186 s -4956 s	FT/SEC 5 457.1 5 457.1 5 477.1 5 477.1 5 492.1 5 492.1 6 763.1 7 691.4 6 763.1 7 780.4 M:-1 6 .5180 6 .5185 7 .5581 7 .5581 7 .55972	FT/SEC 1 479.5 3 493.2 509.4 5 557.4 6 624.5 6 63.7 7 745.8 1 763.9 7 781.2 M'-2 0 .6358 6 6420 6 659 1 .6962 7 .7276 7 .7276 2 .7805
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85	DIA=1 IN 17-72( 18-35) 19-07( 21-14( 23-97( 26-79() 28-86( 29-57( 30-24() INCS GREE -02 -69 -08 -2-27 -9-18 -5-93 -6-38	In. 18-580 19-110 19-740 21-600 24-200 28-900 29-600 1-28-900 1-28	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9 16.8 13.83 13.94	FT/SEC	FT/SEC 543.8 557.6 591.6 591.6 587.9 562.3 540.0 515.5 CAMBE2 DEGREE 62.53 59.0 51.72 44.29	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3866	FT/SEC 637-8 626-7 592-4 502-9 420-0 329-6 329-6 324-9 0=FAC -4601 -4150 -3802 -35549	FT/SEC 19-0 37-3 35-2 29-0 31-0 11-0 6-9 10-2 0MFGA=8 -1293 -1345 -1113 -0637 -0317	DESREE 99.55 48.56 48.56 48.56 40.35 31.60 30.38 31.20 32.22 LOSS-P TOTAL 0331 0134 0134 0114	DEGREE 1-93 3-73 3-16 2-83 3-10 1-12 -199 1-20 -LOSS-P PROFILE -03314 -0134 -0114 -0153	DEGREE	DEGREE 5. 39.41 39.52 4 39.16 9 41.98 7 46.02 5. 53.62 5. 57.75 57.75 57.75 6. 0000 6.	FT/SEC   573-0 574-2 577-0 574-4 622-7 668-9 699-1 694-4 687-9 EFF-AD TOTAL S .0000 .0000 .0000 .0000	FT/SEC 725.3 731.8 750.9 789.9 824.7 83.8 922.5 915.5 911.6 EFF-P STATIC 7986 .7986 .7983 .8187 .8771 .9123 .8183	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -335.7 -415.2 -436.2 -455.5 M-1 .7571 .7572 .7375 .6971 .6064 .5809	FT/SEC = 460 s = -455 4	FT/SEC 5 457.2 6 472.1 7 492.1 7 545.5 6 618.6 7 63.1 7 7 63.1 7 7 63.1 7 7 63.1 7 7 63.1 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	FT/SEC 1 479.5 493.2 1 509.4 5 557.4 6 624.5 6 763.9 7 781.2 M'-2 M'-2 0 .6358 6 6420 6 659 1 .6962 .7276 2 .7805 8 .9138
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85 90	OIA=1 IN 17-72( 18-35( 19-07( 21-14( 23-77( 24-79( 28-86( 29-57( 30-24(  INCS GREE -02-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69 -08-69	If, 18-580 19-110 19-740 21-600 24-200 0 26-880 1 28-900 1 30-27J INCA UEGREE 2 3-92 4-95 1 4-95 1 4-17 1 2-55	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9 13.83 13.94 15.31 16.71	FT/SEC 50.8 573.7 583.3 587.7 573.2 561.3 547.2 517.6 486.5 TURN DEGREE 44.83 42.75 37.52 30.44 30.44 30.64	FT/SEC 543-8 553-2 567-6 591-6 589-11 577-9 562-3 540-0 515-5 CAMBER DEGREE 62-53 59-56 51-72 44-25 44-25 45-29	FT/SEC 560,3 572,5 582,2 587.0 561,1 547,2 517.5 486,4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3869 1.2867 1.2554	FT/SEC 637-8 626-7 592-4 502-9 420-0 355-6 329-6 324-9 D=FAC -5016 -4833 -4601 -4150 -3802 -3556 -328-6 -3802 -3556	FT/SEC 17.0 37.3 35.2 29.0 31.0 11.0 11.0 0.2 0MFGA=8 1293 1345 1113 0637 0429 0317	DESREE	DEGREE 1.93 3.73 3.46 2.63 3.10 1.12 3.44 99 1.20	DEGREE	UE GREE 5. 39.51 7. 38.52 8. 39.16 9. 41.98 7. 46.02 1. 50.56 8. 53.62 8. 57.75 6. 57.75 6. 0000 9. 0000 9. 0000 9. 0000 9. 0000 9. 0000	FT/SEC   573-0 574-2 577-0 594-4 682-7 668-9 699-1 694-4 687-9 FFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	FT/SEC   725.3   731.8   750.9   789.9   789.9   789.9   789.9   789.5   790.5	FT/SEC 180.5 153.1 190.3 -42.6 -298.5 -335.7 -415.2 -455.5 M-1 .7571 .7572 .7375 .6971 .6964 .5664	FT/SEC -4604554554557427537707	FT/SEC 457.13 472.13 492.13 545.55 618.66 763.13 780.4 M'-1 6.5185 6.5185 6.5185 6.52185	FT/SEC 1 479.5 479.5 499.4 557.4 624.5 693.7 745.8 763.9 781.2 M*-2 6358 6420 6420 6420 65.659 6962 77276 78052
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85	DIA=1 IN 17-72( 18-35) 19-07( 21-14( 23-97( 26-79() 28-86( 29-57( 30-24() INCS GREE -02 -69 -08 -2-27 -9-18 -5-93 -6-38	If, 18-580 19-110 19-740 21-600 24-200 0 26-880 1 28-900 1 30-27J INCA UEGREE 2 3-92 4-95 1 4-95 1 4-17 1 2-55	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9 16.8 13.83 13.94	FT/SEC 50.8 573.7 583.3 587.7 573.2 561.3 547.2 517.6 486.5 TURN DEGREE 44.83 42.75 37.52 30.44 30.44 30.64	FT/SEC 543-8 553-2 567-6 591-6 589-11 577-9 562-3 540-0 515-5 CAMBER DEGREE 62-53 59-56 51-72 44-25 44-25 45-29	FT/SEC 560,3 572,5 582,2 587.0 561,1 547,2 517.5 486,4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3869 1.2867 1.2554	FT/SEC 637-8 626-7 592-4 502-9 420-0 355-6 329-6 324-9 D=FAC -5016 -4833 -4601 -4150 -3802 -3556 -328-6 -3802 -3556	FT/SEC 17.0 37.3 35.2 29.0 31.0 11.0 11.0 0.2 0MFGA=8 1293 1345 1113 0637 0429 0317	DESREE	DEGREE 1.93 3.73 3.46 2.63 3.10 1.12 3.44 99 1.20	DEGREE	DEGREE 5. 39.41 39.52 4 39.16 9 41.98 7 46.02 5. 53.62 5. 57.75 57.75 57.75 6. 0000 6.	FT/SEC   573-0 574-2 577-0 594-4 682-7 668-9 699-1 694-4 687-9 FFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	FT/SEC 725.3 731.8 750.9 789.9 824.7 83.8 922.5 915.5 911.6 EFF-P STATIC 7986 .7986 .7983 .8187 .8771 .9123 .8183	FT/SEC 180.5 153.1 190.3 -42.6 -298.5 -335.7 -415.2 -455.5 M-1 .7571 .7572 .7375 .6971 .6964 .5664	FT/SEC = 460 s = -455 4	FT/SEC 457.13 472.13 492.13 545.55 618.66 763.13 780.4 M'-1 6.5185 6.5185 6.5185 6.52185	FT/SEC 1 479.5 479.5 499.4 557.4 624.5 693.7 745.8 763.9 781.2 M*-2 6358 6420 6420 6420 65.659 6962 77276 78052
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85 90	NA=1 IN 17-72( 18-35-91( 21-14( 23-97( 26-79( 29-57( 30-24(  INCS GREE 402 46-96 408 45-96 45-96 45-96 45-96 45-96	In. 18-580 19-110 19-740 21-600 21-600 22-600 1-28-900 1-	FT/SEC 836.0 820.6 770.7 723-6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 16.8 13.89 15.33 16.71 17.53	FT/SEC	FT/SEC 543.8 553.8 557.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53 59.56 51.72 44.75 44.75 45.29	FT/SEC 560.3 572.5 582.2 587.0 561.1 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3869 1.2867 1.2271	FT/SEC 637-8 626-7 592-4 502-9 925-6 329-6 329-6 324-9 0=FAC -401 -4150 -38056 -3549 -3806	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 8.9 10.2 0MEGA=B .1345 .1346	DESREE	DEGREE 1-93 3-46 2-83 3-10 1-12	DEGREE	UE GREE 5 39.51 39.52 4 39.52 4 39.52 5 5 5 5 5 5 5 5 5 7 5 5 7 7 5 5 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	FT/SEC (	FT/SEC 725.3 731.8 750.9 789.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC 7986 8187 .8771 .9018 .8829 .8203 .7852	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -335.7 -415.2 -455.5 M-1 .7571 .7522 .7375 .6971 .6064 .5809 .5612	FT/SEC -460 si -455 si -425 si -426 si	FT/SEC 5 457.1 5 457.1 5 472.1 5 472.1 5 472.1 6 10.4 6 763.1 7 744.6 7 744.6 7 753.1 7 .535.1 7 .535.1 7 .535.1 7 .535.1 7 .6226 .6171 .6094	FT/SEC 1 479.5 493.2 599.4 557.4 624.5 624.5 763.9 781.2 M'-2 0.6358 6420 65.6420 65.6420 65.659 1.6962 77805 8138 8052 7992
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85 90	NA=1 IN 17-72( 18-35-91( 21-14( 23-97( 26-79( 29-57( 30-24(  INCS GREE 402 46-96 408 45-96 45-96 45-96 45-96 45-96	In. 18.580 19.110 19.740 1.19.740 1.21.600 1.28.900 1.29.600 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20	FT/SEC 836.2 820.6 770.7 723-6 678.6 651.8 631.3 609.4 DEGREE 18.42 19.69 18.9 16.8 13.83 15.33 16.71 17.53	FT/SEC	FT/SEC 543.8 557.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53 59.56 51.72 44.75 45.29 45.29 45.96	FT/SEC 560.3 572.5 587.0 587.0 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.1081 2.1081 1.7532 1.5446 1.3869 1.2867 1.2554	FT/SEC 437.8 626.7 592.4 502.9 420.0 329.6 329.6 324.9 D=FAC .5016 .4601 .4150 .3802 .3556 .3549 .3806 .4120	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 8.9 10.2 0MEGA=8 1293 1345 1113 0637 0317 0319 0664 0866	DESREE	DEGREE 1-93 3-46 2-83 3-10 1-12	DEGREE	UE GREE 5. 39.51 7. 38.52 8. 39.16 9. 41.98 7. 46.02 1. 50.56 8. 53.62 8. 57.75 6. 57.75 6. 0000 9. 0000 9. 0000 9. 0000 9. 0000 9. 0000	FT/SEC (	FT/SEC 725.3 731.8 750.9 789.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC 7986 8187 .8771 .9018 .8829 .8203 .7852	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -335.7 -415.2 -455.5 M-1 .7571 .7522 .7375 .6971 .6064 .5809 .5612	FT/SEC = 460 si	FT/SEC 5 457.2 6 477.2 492.1 5 492.1 6 545.5 6 618.6 7 691.6 7 691.6 7 691.6 9 763.1 7 691.6 9 763.1 7 691.6 9 763.1 7 691.6 9 763.1 9	FT/SEC 1 479.5 493.2 1 509.4 5 557.4 6 624.5 6 693.7 7 745.8 1 763.9 7 781.2 M'-2 0 .6358 6 .6420 6 .6599 1 .6962 2 .7805 3 .8052 4 .7992 SLANT~2
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85 90	NA=1 IN 17-72( 18-35-91( 21-14( 23-97( 26-79( 29-57( 30-24(  INCS GREE 402 46-96 408 45-96 45-96 45-96 45-96 45-96	In. 18.580 19.110 19.740 1.19.740 1.21.600 1.28.900 1.29.600 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20.273 1.00 1.20 1.20 1.20 1.20 1.20 1.20 1.20	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 19.69 18.9 13.83 13.94 15.31 16.71 17.53	FT/SEC 50.8 573.7 583.3 587.7 573.2 561.3 547.2 517.6 486.5 TURN DEGREE 44.83 42.75 37.52 44.83 42.75 37.52 30.44 30.64 30	FT/SEC 543.8 557.6 591.6 589.1 577.9 562.3 540.0 515.5 CAMBER DEGREE 62.53 59.56 51.72 44.75 45.29 45.29 45.96	FT/SEC 560.3 572.5 582.2 587.0 561.1 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3869 1.2867 1.2271	FT/SEC 637-8 626-7 592-4 502-9 925-6 329-6 329-6 324-9 0=FAC -401 -4150 -38056 -3549 -3806	FT/SEC 19.0 37.3 35.2 29.0 31.0 11.0 8.9 10.2 0MEGA=B .1345 .1346	DESREE	DEGREE 1-93 3-46 2-83 3-10 1-12	DEGREE	UE GREE 5 39.51 39.52 4 39.52 4 39.52 5 5 5 5 5 5 5 5 5 7 5 5 7 7 5 5 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	FT/SEC (	FT/SEC 725.3 731.8 750.9 789.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC 7986 8187 .8771 .9018 .8829 .8203 .7852	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -335.7 -415.2 -455.5 M-1 .7571 .7522 .7375 .6971 .6064 .5809 .5612	FT/SEC = 460 si	FT/SEC 5 457.1 5 457.1 5 472.1 5 472.1 5 472.1 6 10.4 6 763.1 7 744.6 7 744.6 7 753.1 7 .535.1 7 .535.1 7 .535.1 7 .535.1 7 .6226 .6171 .6094	FT/SEC 1 479.5 493.2 1 509.4 5 557.4 6 624.5 6 693.7 7 745.8 1 763.9 7 781.2 M'-2 0 .6358 6 .6420 6 .6599 1 .6962 2 .7805 3 .8052 4 .7992 SLANT~2
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 85 90	NA=1 IN 17-72( 18-35-91( 21-14( 23-97( 26-79( 29-57( 30-24(  INCS GREE 402 46-96 408 45-96 45-96 45-96 45-96 45-96	III. 8-580 19-110 19-740 21-600 21-600 1-28-900	FT/SEC 836.0 820.6 770.7 723.6 678.6 651.8 631.3 609.4 DEGREE 19.69 18.9 13.83 13.94 15.31 16.71 17.53	FT/SEC 560-8 573-7 583-3 587-7 573-2 561-3 547-2 517-6 486-5 TURN DEGREE 47-82 44-83 42-75 30-44 30-64 30-64 30-64 30-64 30-64 30-64 31-62 3	FT/SEC 543-8 553-2 567-6 591-6 589-1 577-9 562-3 540-0 515-5 CAMBER DEGREE 62-53 59-56 51-72 44-25 44-29 45-29 45-29	FT/SEC 560.3 572.5 582.2 587.0 572.4 561.1 547.2 517.5 486.4 SOLIDIY 2.1081 2.0303 1.9477 1.7532 1.5486 1.3869 1.2867 1.2554 1.2257 FC2/PO1	FT/SEC 626.7 592.4 502.9 420.0 355.6 329.6 326.9 324.9 D=FAC .5016 .4833 .4601 .4150 .3556 .3549 .3556 .3549 .31402	FT/SEC 17.0 37.3 35.2 29.0 31.0 11.0 8.9 10.2 0MEGA=B .1293 .1345 .1113 .0637 .0429 .0317 .0394 .0664 .0664	DESREE	DEGREE 1-93 3-46 2-83 3-10 1-12	DEGREE	UE GREE 5 39.51 39.52 4 39.52 4 39.52 5 5 5 5 5 5 5 5 5 7 5 5 7 7 5 5 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	FT/SEC (	FT/SEC 725.3 731.8 750.9 789.9 789.9 824.7 883.8 922.5 915.5 911.6 EFF-P STATIC 7986 8187 .8771 .9018 .8829 .8203 .7852	FT/SEC 180.5 153.1 190.3 -42.6 -198.5 -335.7 -415.2 -455.5 M-1 .7571 .7522 .7375 .6971 .6064 .5809 .5612	FT/SEC = 460 si	FT/SEC 5 457.1 5 457.1 5 472.1 5 492.1 5 618.6 7 691.4 6 763.1 7 780.4 M'-1 6 .5180 6 .5185 6 .5215 7 .5580 7 .6226 6 .6171 7 .6226 6 .6171 8 .6226 6 .6171 8 .6226 8	FT/SEC 1 479.5 499.2 1 599.4 5 557.4 6 693.7 7 745.8 1 763.9 7 781.2 M'-2 0 .6358 6.6420 6.6599 1 .6962 2 .7805 3 .8052 4 .7992 SLANT~2

## Blade-Element and Overall Performance with Stator-Hub Slit Suction 80% of Design Speed

ROTOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 U-2 IN IN FT/SEC % SPAN 13.120 16.030 434.1 872.2 434.1 525.0 .00 52.99 37.92 -28.34 550.3 596.6 -338.2 283.3 338.2 413.2 .0 696.5 14.100 16.790 442.5 849.0 442.5 523.7 .0 668.1 .00 51.90 39.39 -24.17 572.7 574.6 -363.4 235.3 363.4 432.8 15.170 17.580 451.0 819.3 451.0 528.6 .0 625.8 .00 49.80 40.91 -18.05 597.0 556.8 -391.0 172.7 391.0 453.1 18.280 19.910 471.6 741.3 471.6 513.3 .0 534.7 .00 46.15 44.94 -2.33 666.8 515.5 -471.2 21.5 471.2 513.2 .00 42.51 49.43 16.63 752.8 512.1 -572.0 -146.6 572.0 595.2 22.193 23.090 489.2 663.6 489.2 489.0 .0 448.6 .00 39.19 53.26 32.11 832.3 554.3 -667.1 -294.8 667.1 676.9 .00 38.52 55.76 40.76 887.0 587.6 -733.3 -383.4 733.3 737.5 .00 40.48 56.58 44.27 905.5 579.6 -755.8 -404.2 755.8 758.1 .00 42.75 57.34 47.81 923.1 571.3 -777.2 -423.4 777.2 777.9 70 25.880 26.260 497.6 604.7 497.6 468.6 .0 362.1 28.450 25.610 499.0 568.7 499.0 445.0 .0 354.1 29.320 29.410 498.7 545.5 498.7 415.0 .0 353.9 30.150 30.160 498.1 522.4 498.1 363.6 .0 354.6 INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1 M\*-1 M1-2 \*\*SPAN DEGREE ''EGREE DEGREE DEGRE' EGREE -3.05 3.86 6.49 66.26 70.96 2.4330 TOTAL PROFILE POL TOTAL TOTAL SPOCK .2020 .1598 .0289 .0289 1.3287 .9189 .9155 .5022 .5423 .0000 .3954 .7928 .5245 .5206 -2.07 4.58 6.97 63.56 66.02 2.2853 .2740 .1022 .0204 .0204 1.3408 .9442 .9418 .0000 .4039 .7691 -1.36 4.93 8.34 58.96 62.92 2.1566 .3280 .0564 .0124 .0124 1.3422 .9657 .9642 .0000 .4118 .7399 .5470 .5029 30 .4460 .0287 .0075 .0075 1.3344 .9775 -.26 5.41 11.38 47.28 53.24 1.9044 .9766 .0000 .4304 .6640 .6096 .4617 .4992 .0252 .0071 .0071 1.3235 .9752 .9742 .4468 .5899 .6879 .4552 .60 5.79 12.11 32.80 39.12 1.6905 .0000 6.19 12.06 21.15 27.01 1.5348 .4845 .0275 .0076 .0076 1.3098 .9673 6.11 10.78 15.00 19.67 1.4422 .4762 .0572 .0150 .0150 1.2983 .9266 70 1.98 • 9660 •0000 .4546 .535D -7603 +4905 .9238 .0000 .4560 .5014 8113 .5180 5.96 11.99 12.31 18.33 1.4148 .4962 .1033 .0261 .0261 1.2849 .8668 .8621 5.70 13.66 9.53 17.48 1.3891 .5194 .1463 .0354 .0354 1.2718 .8095 .8030 90 2.44 .0000 .4557 .4795 280 .5094 2.32 ·0000 ·4552 ·457" #437 .5006 NCOR-1 WCOR-1 WC/A+1 TO2/ PC2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LEM/SEC TO1 PO1 DEGREE DEGREE 5907-0 145-53 32-81 1-0865 1-3148 94-116 94-35 6.0 86.05 95.02 5.0 STATOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VD-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2
N IN FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE FT/SEC %SPAN IN .46 -19.31 43.36 522.4 691.4 172.7 -474.7 456.8 478.9 17.720 18.580 799.6 502.9 493.0 502.6 629.5 4.2 51.93 41.80 525.3 688.6 139.7 -459.0 473.0 492.6 18.350 19.110 794.8 514.5 506.2 513.4 612.7 33,6 50,43 3.74 -15.43 4.26 -9.37 42.02 532.3 702.1 86.5 -470.0 491.6 508.8 19.070 19.740 780.8 523.0 524.7 521.6 578.0 38.8 47.76 2.84 4.34 44.63 543.8 754.5 -41.4 -530.1 544.9 556.8 21.140 21.600 739.3 537.4 541.1 536.7 503.5 26,6 42,92 23.970 24.200 695.2 533.7 544.6 532.7 431.9 32.7 38.40 3.51 18.79 47.96 576.4 795.8 -185.9 -591.1 617.9 623.8 26.790 26.880 656.1 527.0 538.7 526.6 374.5 28.860 28.900 630.6 512.8 524.0 512.7 350.8 30.36 52.02 625.1 856.2 -316.1 -674.9 690.5 692.9 17.9 34.80 12.7 33.81 1.95 36.89 55.00 655.2 894.0 -393.1 -732.3 743.9 /44.9 33.81 1.42 29.570 29.600 612.1 485.5 500.9 485.3 351.6 1.80 39.35 57.02 647.9 891.5 -410.6 -747.7 762.2 763.0 15,2 35,08 41.80 58.97 638.7 892.8 -425.7 -765.0 779.5 780.3 30.240 30.270 593.1 460.4 476.1 460.1 353.8 15.2 36.62 1.90 M\*-1 INCS INCM DEV TURN CAMBER SCLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-B EFF-AD EFF-P M-1 M-2 M\*-2 JEGREE DEGREE DEGREE DEGREE TOTAL PROFILE PO1 SHOCK TOTAL % S. STATIO 6.26 16.95 51.47 62.53 2.1082 .5520 .1335 .0317 .0317 .0000 .8089 .9610 .0000 .7181 .4391 .4703 6.70 19.60 46.69 59.54 2.0312 .5279 .1400 .0344 .0344 .9596 .0000 .0000 .7987 .7125 .4496 .4737 .6018 .5037 .1257 1.71 19.6: 43.50 57.04 1.9492 .0321 .0321 .9648 .0000 .0000 .8397 .6993 .4578 .4790 .6146 6.04 40.08 51.69 1.7548 .9831 .0000 .8800 .6613 .4716 .4872 .6621 5.18 16.80 .4544 .0662 0188 .0188 .0000 -1.07 4.42 14.28 34.89 44.76 1.5494 .4164 .C456 .0147 .0147 ·9896 ·0000 ·0000 ·9026 .6204 .4687 .5138 .6989 3.38 14.75 32.85 44.23 1.3871 3.53 16.45 32.39 45.27 1.2867 3923 .5554 .0370 .0133 .9924 .0000 .4631 .7525 .0133 .9080 ,5839 -2.73 3.38 14.75 .0000 3949 .0468 .0182 .0182 ·9910 ·0000 .0000 .8790 .5597 4501 .5812 .7846 .0291 .0291 .9868 .0000 4.79 17.52 33.26 45.96 1.2554 .4255 .0731 .8253 .5417 .4247 .5732 .7799 -1.81 .0000 6.19 18.22 34.72 46.76 1.2271 .4562 .0860 .0350 .0350 .9854 .0000 .0000 .8039 .5229 .4015 .5629 .7786 NCOR-1 WCOR-1 WC/A-1 TO2/ PC2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 P01 DEGREE DEGREE

11.0 12.0 90.00 90.00

5907-0 145-53 32-81 1-0865 1-2945 88-564 88-99

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 80% of Design Speed

ROT	<b>OR</b>						80%	of De	sign S	peed								
% SPAN	DIA-1 In	DIA-2	V-1 FT/SEC	V-2 FT/SEC	VM-1 FT/SEC	VM-2 FT/SEÇ			B-1 DEGREE	8-2 DEGREE	B'-1 DEGREE		V'-1 FT/SEC		VO'-1 FT/SEC			U=2 FT/SEC
5		0 16.030										-28.63			-337.9			
10		0 16.790										-24.36			-363.1			
15		0 17.580										-18.61			-390 -			
30		0 19.910						·							-470.8			
50		0 23.090					•				50.65				-571.5			, -
70 25		<u>0 26.260</u> 0 28.610									54,44 56.90				-666.5 -732.7			
85 90		0 29.410									57.71				-755.			
95		30.180						• • • • • • • • • • • • • • • • • • • •			58.45				-776.5			
W CDAN	INCS	INCH	DEV			SOLIDTY	D-FAC	OMEGA-E	LJSS-P			EFF-P			M-1	M-2	M'-1	M1-1
XLSPAN 5	<u>066866</u>	DEGREE 7 5.03				0 4300	•217	1 .1549		PROFILE		TOTAL	9212	HOCK	.3784	774	4 .488	5 .521
10	8					2 • 4329 2 • 2851					1.3264							
15	1					2.1565					1.3373							
30	.96					1.9044					1.3339		9747	•0000				
50	2.0					1.6905					1.3257		9697	-0000				
70	3.10	<b>-</b> _				1.5348					1.3156		9668	0000			5 ,747	
86	3,50		11.37			1.4422		.0668			1.3046	.9187					4 .798	
90	3.5		12.34	13.09		1-4148				.0267	1.2953	.6701	.8653	.0000	.4353			4 .491
95	3.40	6.82	13,89	10.41	17.48	1.3891	. 5355	5 •1437	.6346	.0346	1.2849	.8220	.8155	-8000	.4348	.455	1 .831	3 .465
		-	WCOR-1			P02/		EFF-P							STA-1 S			
		KPN L	EM/SEC	<u>LBM/SEC</u> SQFT	_101	P01		×		····							<u>Degree</u>	DEGREE
STAT <u>* span</u>	DIA-1	DIA-2	V-1 T/SEC F	V≃2 TZSEC F	VM-1 T/SEC F	VM-2 T/SEC F	V0-1	V0~2	B-1 EGREE D	8-2 FGREE DE	8+-1 EGREE D	ರಿ!=2 FGRFF F	VI-1 T/SEC F	V•-2 T/SEC F	V01-1	V0!=2	U=1 FT/SEC	U=2
5	17.720																	FT/SEC
10		18.580			471.4								499.8				456.4	
15	18.350	19.110	780.8 773.2	473.3	471.4 482.1	472.9 479.4	622.4	-3.1 33.3	52.86 51.42	38	19.40 15.30	45.51	499.8 500.0		166.0		456.4	478.5
			780.8	473.3 480.7		472.9 479.4 489.4	622.4	-3.1 33.3 45.5	52.86 51.42 49.16	38	-19.40	45.51 43.74 43.40	500.0 503.9	675.0 663.7 673.7	166.0 131.9 83.4	-481.6 -458.9 -462.9	456.4 472.6 491.1	478.5 492.2 508.4
30	19.070 21.140	19.110 19.746 21.600	789.8 773.2 759.4 721.0	473.3 486.7 491.5 511.5	482.1 496.4 515.2	472.9 479.4 489.4 510.6	622.4 604.5 574.6 504.2	-3.1 33.3 45.5 29.2	52.86 51.42 49.16 44.36	38 3.96 5.31 3.27	19.40 15.30 -9.55 4.43	45.51 43.74 43.40 45.90	500.0 503.9 517.9	675.0 663.7 673.7 733.9	166.0 131.9 83.4 -40.3	-481.6 -458.9 -462.9 -527.1	456.4 472.6 491.1 544.4	478.5 492.2 508.4 556.3
30 50	19.070 21.140 23.970	19.110 19.746 21.600 24.200	780.8 773.2 759.4 721.0 678.7	473.3 480.7 491.5 511.5 512.4	482.1 496.4 515.2 519.1	472.9 479.4 489.4 510.6 511.1	622.4 604.5 574.6 504.2 437.0	-3.1 33.3 45.5 29.2 35.4	52.86 51.42 49.16 44.36 40.07	38 3.96 5.31 3.27 3.96	19.40 -15.30 -9.55 4.43 19.08	45.51 43.74 43.40 45.90 48.97	500.0 503.9 517.9 550.6	675.0 663.7 673.7 733.9 779.1	166.0 131.9 83.4 -40.3 -180.4	-481.6 -458.9 -462.9 -527.1 -587.8	456.4 472.6 491.1 544.4 617.3	478.5 492.2 508.4 556.3 623.2
30 50 70	19.070 21.140 23.970 26.790	19.110 19.746 21.600 24.200 26.886	780.8 773.2 759.4 721.0 678.7 642.5	473.3 486.7 491.5 511.5 512.4 509.2	482.1 496.4 515.2 519.1 517.4	472.9 479.4 489.4 510.6 511.1 508.7	622.4 604.5 574.6 504.2 437.0 380.8	-3.1 33.3 45.5 29.2 35.4 21.7	52.86 51.42 49.16 44.36 40.07 36.35	3.96 5.31 3.27 3.96 2.45	19.40 15.30 -9.55 4.43 19.08 30.82	45.51 43.74 43.40 45.90 48.97 52.80	500.0 503.9 517.9 550.6 603.2	675.0 663.7 673.7 733.9 779.1 841.8	166.0 131.9 83.4 -40.3 +180.4 -309.1	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5	456.4 472.6 491.1 544.4 617.3	478.5 492.2 508.4 556.3 623.2
30 50 70 85	19.070 21.140 23.970 26.790 28.860	19.110 19.746 21.600 24.200 26.886 28.906	780.8 773.2 759.4 721.0 678.7 642.5	473.3 480.7 491.5 511.5 512.4 509.2 494.5	482.1 496.4 515.2 519.1 517.4 500.0	472.9 479.4 489.4 510.6 511.1 508.7	622.4 604.5 574.6 504.2 437.0 380.8	-3.1 33.3 45.5 29.2 35.4 21.7	52.86 51.42 49.16 44.36 40.07 36.35 35.83	38 3.96 5.31 3.27 3.96 2.45	-19.40 -15.30 -9.55 4.43 19.08 30.82 37.41	45.51 43.74 43.40 45.90 48.97 52.80	500.0 503.9 517.9 550.6 603.2 629.5	675.0 663.7 673.7 733.9 779.1 841.8 877.4	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0	456.4 472.6 491.1 544.4 617.3 690.0 743.3	478.5 492.2 508.4 556.3 623.2 692.3 744.3
30 50 70	19.070 21.140 23.970 26.790 28.860	19.110 19.740 21.600 24.200 26.880 28.900 29.600	780.8 773.2 759.4 721.0 678.7 642.5	473.3 486.7 491.5 511.5 512.4 509.2	482.1 496.4 515.2 519.1 517.4	472.9 479.4 489.4 510.6 511.1 508.7	622.4 604.5 574.6 504.2 437.0 380.8	-3.1 33.3 45.5 29.2 35.4 21.7	52.86 51.42 49.16 44.36 40.07 36.35	3.96 5.31 3.27 3.96 2.45	19.40 15.30 -9.55 4.43 19.08 30.82	45.51 43.74 43.40 45.90 48.97 52.80 55.72 57.52	500.0 503.9 517.9 550.6 603.2 629.5	675.0 663.7 673.7 733.9 779.1 841.8 877.4	166.0 131.9 83.4 -40.3 +180.4 -309.1	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5	478.5 492.2 508.4 556.3 623.2 692.3 744.3 762.3
30 50 70 85 90 95	19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	19.110 19.746 21.600 24.200 26.886 28.900 29.600 30.270	780.8 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2	473.3 480.7 491.5 511.5 512.4 509.2 494.5 470.6 448.5	482.1 496.4 515.2 519.1 517.4 500.0 481.2 459.5	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.6 447.9	622.4 604.5 574.6 504.2 437.0 380.8 361.0 362.3	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39	38 3.96 5.31 3.27 3.96 2.45 2.25 2.25 2.91 3.07	-19.40 -15.30 -9.55 4.43 19.08 30.82 37.41 39.69 42.07	45.51 43.74 43.40 45.90 48.97 52.80 55.72 57.52 59.34	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5	478.5 492.2 508.4 556.3 623.2 692.3 744.3 762.3
30 50 70 85 90 95	19.070 21.140 23.970 26.790 28.860 29.570 30.240	19.110 19.746 21.600 24.200 26.886 28.900 29.600 30.270	780.8 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI	473.3 480.7 491.5 511.5 512.4 509.2 494.5 470.6 448.5	482.1 496.4 515.2 519.1 517.4 5000 481.2 459.5 AMBER S	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.9 0LIDTY	622.4 604.5 574.6 504.2 437.0 380.8 361.0 362.3	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39	38 3.96 5.31 3.27 3.96 2.45 2.25 2.91 3.07 LOSS-P	-19.40 -15.30 -9.55 4.43 19.08 30.82 37.41 39.69 42.07	45.51 43.74 43.40 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BEI	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 0	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5 778.8	478.5 492.2 508.4 556.3 623.2 692.3 744.3 762.3 779.6
30 50 70 85 90 95	19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE [	19.110 19.746 21.600 24.200 26.886 28.900 29.600 30.270 INCM	780.8 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI	473.3 480.7 491.5 511.5 512.4 509.2 494.5 470.6 448.5 TURN CO	482.1 496.4 515.2 519.1 517.4 5000 481.2 459.5 AMBER S	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.6 447.9 0LIDTY 2.1082	622.4 604.5 574.6 504.2 437.0 380.8 361.0 362.3 364.0	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P	38 3.96 5.31 3.27 3.96 2.45 2.25 2.91 3.07 LOSS-P ROFILE	19.40 -15.30 -9.55 4.43 19.08 30.82 37.41 39.69 42.07 P02/ 0	45.51 43.74 43.40 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BEI 0CK T	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8 M-1	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5	456.4 472.6 491.1 544.4 619.0 743.3 761.5 778.8 M*=1	478.5 492.2 508.4 556.3 692.3 744.3 762.3 779.6 M*-2
30 50 70 85 90 95	19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE [ 3.23	19.110 19.746 21.600 24.230 26.886 28.900 29.600 30.270 INCM DEGPEE D 7.19	780.8 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI	473.3 480.5 511.5 512.4 509.2 494.5 476.6 448.5 TURN CD EGREE D 63.24	482.1 496.4 515.2 517.1 517.4 500.0 481.2 459.5 AMBER S EGREE 62.53 59.54	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.6 447.9 0LIDTY 2.1082 2.0312	622.4 604.5 574.6 504.2 437.8 361.0 362.3 364.0 D-FAC (	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P TOT: LP	38 3.96 5.31 3.27 3.96 2.45 2.25 2.91 3.07 LOSS-P	-19.40 -15.30 -9.55 4.43 19.08 30.82 37.41 39.69 42.07 P02/ 0 P01 SH -9599	45.51 43.74 43.40 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BEI	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 0 0TAL S	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P TATIC -8035	166.0 131.9 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8 M-1 .6991 .6996 .6788	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5 778.8 M'=1	478.5 492.2 508.4 556.3 623.3 744.3 762.3 779.6 M* = 2
30 50 70 85 90 95 \$1.SPAN 5	19.070 21.140 23.970 26.750 28.860 29.570 30.240 INCS DEGREE [ 3.23 3.53	19.110 19.746 21.600 24.200 26.886 28.900 29.600 30.270 INCM DEGPEE D 7.19 7.79	780.8 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI 16.10 19.90	473.3 480.5 511.5 512.4 509.2 494.5 476.6 448.5 TURN CD EGREE D 63.24	482.1 496.4 515.2 517.1 517.4 500.0 481.2 459.5 AMBER S EGREE 62.55 59.54	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.6 447.9 0LIDTY 2.1082 2.0312 1.9494	622.4 604.5 574.6 504.2 437.0 380.8 361.0 362.3 364.0 D-FAC ( .5793 .5560 .4758	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B .1431 .1516 .1516 .1581	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P TOI'LP 0339	38 3.96 5.31 3.27 3.96 2.45 2.25 2.91 3.07 LOSS-P ROFILE .0339	-19.40 -15.30 -9.55 4.43 19.82 37.41 39.69 42.07 P02/ 0 P01 SH -9599 -9583	45.51 43.74 45.40 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BEI OCK	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 0TAL S .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P TATIC .8035 .7893	166.0 131.9 83.4 -40.5 -180.4 -309.1 -399.3 -414.8 M-1 .6991 .6916 .6439	-481.6 -458.9 -527.1 -587.8 -670.5 -725.0 -735.4 -755.5 M-2 .4126 .4123 .4479	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5 778.8 M'=1 .4485 .4492 .4629	478.5 492.2 508.3 556.3 692.3 7462.3 779.6 M*-2 .5885 .5789 .5885
30 50 70 85 90 95 \$ <u>SPAN</u> 5 10	19.070 21.140 23.970 26.750 28.860 29.570 30.240 INCS DEGREE: [ 3.23 3.53 3.17	19-110 19-740 21-600 24-200 26-880 29-600 30-270 INCM DEGPEE D 7-19 7-79 7-50 6-63 6-10	780.6 773.2 759.4 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI 16.10 19.90 20.73 17.23 14.72	473.3 480.5 491.5 512.4 509.2 494.5 476.6 448.5 TURN COEGREE DO 53.24 47.47 43.85	482.1 496.4 515.2 519.1 517.4 500.0 481.2 459.5 AMBER 62.5 59.54 57.03 51.74	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.93494 1.7553 1.5496	622.4 604.5 574.6 504.2 437.0 381.8 361.0 362.3 364.3 D-FAC ( .5793 .5560 .5277 .4758 .4347	-3.1 33.3 45.2 29.2 35.4 21.7 19.3 24.0 0MEGA-B .1431 .1516 .1356 .0532	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P 101'4 P .0339 .0346	38 3.96 5.31 3.27 3.96 2.45 2.25 2.91 3.07 LO\$5-P ROFILE .0372 .0346	-19.40 -15.30 -9.55 4.43 19.08 30.82 37.41 39.69 42.07 PO2/ 0 PO1 SH -9599 -9583 -9638 -9618 -9884	45.51 43.74 45.40 48.97 52.80 55.72 57.52 59.34 MEGA-BE OCK T	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD S .0000 .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P TATIC .8035 .7893 .8012 .8639	166.0 131.9 83.4 -40.3 -180.4 -309.1 -399.3 -414.8 M-1 .6991 .6916 .6788 .6439	-481.6 -458.9 -527.1 -587.8 -670.5 -725.0 -755.5 M-2 -4126 .4123 .4293 .4490	456.4 472.6 491.1 544.4 617.3 690.0 743.5 778.8 M'-1 .4485 .4492 .4521 .4629 .4894	478.5 492.2 508.3 623.2 692.3 742.3 779.6 M*-2 .5885 .5789 .5884 .6827
30 50 70 85 90 95 25 SPAN 5 10 15 30	19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.23 3.53 3.17 1.84 .61	19.110 19.746 21.600 24.200 26.886 29.600 30.270 INCM DEGPEE D 7.79 7.79 7.50 6.63 6.10 4.92	780.6 773.2 759.4 721.0 678.7 616.7 602.4 586.2 DEV EGREE DI 16.10 20.73 17.23 14.72 15.25	473.3 480.5 512.5 512.4 512.5 512.4 470.6 448.5 TURN DESCRIPTION OF THE PROPERTY OF THE PROPER	482.1 496.4 515.2 519.1 517.4 500.0 481.5 459.5 AMBER 62.55 59.54 57.03 51.69 44.22	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.7553 1.5496 1.3872	622.4 604.5 574.6 504.2 437.0 360.8 362.3 364.0 D-FAC .5793 .5560 .5277 .4758 .4347 .4085	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B .1431 .1516 .1356 .G7812 .C444	52.86 51.42.49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P 101.4P 0372 0346 0222 0171 0160	38 3.96 5.31 3.27 3.96 2.45 2.91 3.07 LOSS-P ROFILE .0339 .0372 .0346	19.40 15.30 99.55 4.43 19.08 30.82 37.41 39.69 42.07 P02/0 P01/SH 9589 9638 9638 9810 9884 9912	45.51 43.74 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BE OCK .9000 .0000	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 0TAL S .0000 .0000 .0000 .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 875.4 875.4 875.4 875.4 8012 .8635 .8012 .8639 .8949	166.0 131.9 83.4 -40.3 -180.4 -302.1 -382.3 -399.3 -414.8 M-1 .6991 .6788 .6439 .6045 .5728	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2 .41263 .4293 .4479 .4466	456.4 472.6 491.1 544.4 617.3 690.3 761.5 778.8 M*-1 .4485 .4521 .4629 .5348	478.5 492.2 508.4 556.3 623.2 692.3 779.6 M*-2 .5885 .5789 .5884 .6427 .7383
30 50 70 85 90 95 <b>3. SPAN</b> 5 10 15 30 50	19.070 21.140 23.970 26.750 28.860 29.570 30.240 INCS DEGREE   3.23 3.53 3.17 1.84 61 -1.18 94	19-110 19-746 21-600 24-200 26-886 29-600 30-270 INCM EGPEE D 7-19 7-79 7-50 6-63 6-10 4-92 5-55	780.6 773.2 773.2 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI 16.10 19.90 17.23 14.72 15.25 17.28	473.3 480.7 491.5 511.5 512.4 509.2 470.6 448.5 TURN C. EGREE D. 63.24 47.47 43.85 41.09 33.90 33.58	482.1 496.4 519.1 517.4 530.0 459.5 AMBER 62.53 59.54 51.69 44.22 45.27	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.9394 1.7553 1.5596 1.3872 1.3872 1.2867	622.4 604.5 574.6 504.2 437.0 361.0 362.3 364.0 D-FAC .5793 .5560 .5277 .4758 .4347 .4085 .4131	-3.1 33.3 45.2 29.2 35.4 21.7 123.9 24.0 0MEGA-B .1431 .1516 .0781 .0782 .044.0	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P TOI'LP .0339 .0346 .0222 .0171 .0216	38 3.96 5.31 3.27 3.96 2.45 2.91 3.07 LOSS-P ROFILE .0339 .0372 .03746 .0222 .0171 .0160	19.40 15.30 4.43 19.08 30.82 37.41 39.69 42.07 P02/ 0 P01 SH .9583 .9610 .9884 .9898	45.51 43.74 45.90 48.97 52.80 55.72 57.52 59.34 MEGA-BEI OCK T .0000 .0000 .0000	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 0000 0000 0000 0000 0000 0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 878.3 EFF-P 1ATIC .8035 .7893 .8906 .8906 .8949 .8949	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8 M-1 .6991 .6996 .6439 .6439 .5728	-481.6 -458.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2 -4126 .4129 .4479 .4469 .4329	456.4 472.6 491.1 544.4 617.3 690.0 7743.3 761.5 778.8 M'=1 .4485 .4485 .4521 .4629 .4894 .5348	478.5 492.2 508.4 556.3 623.2 623.2 744.3 779.6 M'-2 .5885 .5785 .6827 .6827 .7481
30 50 70 85 90 95 \$\frac{1}{2} \text{SPAN} \frac{5}{10} \tag{15} \tag{30} \tag{50} \tag{70}	19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.23 3.53 3.17 1.84 .61	19.110 19.746 21.600 24.200 26.886 29.600 30.270 INCM DEGPEE D 7.79 7.79 7.50 6.63 6.10 4.92	780.6 773.2 759.4 721.0 678.7 616.7 602.4 586.2 DEV EGREE DI 16.10 20.73 17.23 14.72 15.25	473.3 480.5 511.5 512.4 509.2 496.6 448.5 TURN DE E3.24 47.47 41.09 36.11 33.58 34.08	482.1 496.4 515.2 519.1 517.4 500.0 481.5 459.5 AMBER 62.55 59.54 57.03 51.69 44.22	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.9494 1.7553 1.5496 1.3872 1.2867 1.2857	622.4 604.5 574.6 504.2 437.0 360.8 362.3 364.0 D-FAC .5793 .5560 .5277 .4758 .4347 .4085	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B .1431 .1516 .1356 .G7812 .C444	52.86 51.42.49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P 101.4P 0372 0346 0222 0171 0160	38 3.96 5.31 3.27 3.96 2.25 2.91 3.07 LOSS-P ROFILE .0372 .0372 .0346 .0222 .0171	19.40 15.30 99.55 4.43 19.08 30.82 37.41 39.69 42.07 P02/0 P01/SH 9589 9638 9638 9810 9884 9912	45.51 43.74 45.90 48.97 55.72 57.52 59.34 MEGA-BEI OCK T •0000 •0000 •0000	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 0TAL S .0000 .0000 .0000 .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 875.4 875.4 875.4 875.4 8012 .8635 .8012 .8639 .8949	166.0 131.9 83.4 -40.3 -180.4 -302.1 -382.3 -399.3 -414.8 M-1 .6991 .6788 .6439 .6045 .5728	-481.6 -458.9 -462.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2 .41263 .4293 .4479 .4466	456.4 472.6 491.1 617.3 690.0 743.3 761.5 778.8 M'-1 .4485 .4482 .4521 .4629 .4894 .5368 .5569	478.5 492.2 508.3 623.2 692.3 762.3 779.6 M'-2 .5885 .5789 .5882 .7883 .7883 .7883
30 50 70 85 90 95 <b>32 SPAN</b> 5 10 15 30 50 70 85	19.070 21.140 23.970 26.790 28.860 29.570 30.240 MCS DEGREE 3.23 3.53 3.17 1.84 61 -1.18 -94	19-110 19-740 21-740 24-200 24-200 26-886 29-600 30-270 INCM EGPEE D 7-19 7-79 7-50 6-63 6-10 4-92 5-55 6-70 7-97	780-6 773-2 773-2 721-0 678-7 642-5 616-7 602-4 586-2 DEV EGREE DI 16-10 19-90 17-23 14-72 15-25 17-28 18-63 19-40 WCOR-1	473.3 480.7 491.5 512.4 509.2 470.6 448.5 TURN C. EGREE D. 53.24 47.47 43.85 41.09 33.90 35.58 34.02 WC/A-1	482.1 496.4 519.1 517.4 530.0 459.5 AMBER 62.53 59.54 51.69 44.27 45.96 46.76 702/	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.9394 1.7553 1.5496 1.3872 1.2857 1.2554 1.2271	622.4 604.5 574.6 504.2 437.0 361.3 362.3 364.0 D-FAC ( .5793 .5560 .5277 .4758 .4347 .4085 .4131 .4423 .4710	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B .1431 .1516 .07532 .0444 .0556 .0876 .1028	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P 101.4 P .0339 .0346 .0222 .0171 .0160 .0216	38 3.96 5.31 3.27 3.96 2.45 2.91 3.07 LOSS-P ROFILE .0339 .0372 .0346 .0222 .0171 .0160 .0216	19.40 15.30 9.55 4.43 19.08 30.82 37.69 42.07 P02/0 P01 SH .9599 .9583 .9638 .9910 .9884 .9912 .9898	45.51 43.74 45.90 48.97 52.80 57.72 57.52 59.34 MEGA-BEI 0CK 1000 0000 0000 0000 0000	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 5 .0000 .0000 .0000 .0000 .0000 .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4 875.4 878.3 EFF-P IAILC .8035 .8012 .8639 .8906 .7996 .7791	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8 M-1 .6991 .6788 .6439 .6045 .5708 .5460 .5320	-481.6 -458.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2 -4126 .4129 .4479 .4469	456.4 472.6 491.1 544.4 617.3 690.0 743.3 761.5 778.8 M'=1 .4485 .4521 .4521 .4629 .4894 .5348 .5348 .5348 .5348	478.5 492.2 506.3 623.2 623.2 774.3 779.6 M'-2 .5885 .5789 .6427 .7881 .7641 .7645 SLANT-2
30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	19.070 21.140 23.970 26.790 28.860 29.570 30.240 MCS DEGREE 3.23 3.53 3.17 1.84 61 -1.18 -94	19-110 19-740 21-600 24-200 26-880 29-600 30-270 INCM DEGPEE D 7-19 7-79 7-50 6-63 6-10 4-92 5-55 6-70 7-97 NCOR-1 RPM LB	780.6 773.2 773.2 721.0 678.7 642.5 616.7 602.4 586.2 DEV EGREE DI 16.10 19.90 20.73 17.23 14.72 17.23 19.40 WCOR-1	473.3 481.5 512.4 512.4 512.4 512.4 476.6 448.5 TURN E 648.5 TURN E 43.85 43.90 43.58	482.1 496.4 515.2 519.1 517.4 500.0 481.2 459.5 AMBER 62.55 59.54 57.03 51.69 44.74 44.22 45.27 45.96 46.76	472.9 479.4 489.4 510.6 511.1 508.7 494.2 470.0 447.9 0LIDTY 2.1082 2.0312 1.5496 1.5496 1.5496 1.3872 1.2867 1.2554 1.2271	622.4 604.5 574.6 504.2 437.0 360.8 362.3 364.0 D-FAC ( .5793' .5560 .5277 .4758 .4347 .4085 .4131 .4423 .4710 EFF-AD	-3.1 33.3 45.5 29.2 35.4 21.7 19.3 23.9 24.0 0MEGA-B .1431 .1516 .1356 .G532 .C444 .U556 .U876 .1028 EFF-P	52.86 51.42 49.16 44.36 40.07 36.35 35.83 36.99 38.39 LOSS-P 101.4 P .0339 .0346 .0222 .0171 .0160 .0216	38 3.96 5.31 3.27 3.96 2.45 2.91 3.07 LOSS-P ROFILE .0339 .0372 .0346 .0222 .0171 .0160 .0216	19.40 15.30 9.55 4.43 19.08 30.82 37.69 42.07 P02/0 P01 SH .9599 .9583 .9638 .9910 .9884 .9912 .9898	45.51 43.74 45.90 48.97 52.80 57.72 57.52 59.34 MEGA-BEI 0CK 1000 0000 0000 0000 0000	500.0 503.9 517.9 550.6 603.2 629.5 625.4 619.0 FF-AD 5 .0000 .0000 .0000 .0000 .0000 .0000	675.0 663.7 673.7 733.9 779.1 841.8 877.4 875.4	166.0 131.9 83.4 -40.3 -180.4 -309.1 -382.3 -399.3 -414.8 M-1 .6991 .6788 .6439 .6045 .5708 .5460 .5320	-481.6 -458.9 -527.1 -587.8 -670.5 -725.0 -738.4 -755.5 M-2 -4126 .4129 .4479 .4469	456.4 472.6 491.1 544.4 617.3 690.0 778.8 M*=1 .4485 .4521 .4624 .5348 .5569 .5521 .5445	478.5 492.2 598.4 556.3 623.2 692.3 762.3 762.3 762.3 762.3 7589 .5884 .6427 .7383 .7681 .7645 SLANT-2

Blade-Element and Overall Performance with Stator-Hub Slit Suction

						-				_	· Duan	or-Hub	onts	uCtion				
ROT	OR						80%	of De	sign S	peed								
% SPAN		DIA-2	V-1 FT/SEC	V-2 FT/SEC	VM-1 FT/SEC	VM-2	VO-1 FT/SEC	VO-2	8-1 DEGREE	B-2 DEGREE (	BI-I	BI-2 DEGREE	Y -1	VI-2	VOP-1	YOU-2	U=1 FT/SEC	U=2 FT/SEC
5		16.030	383.3	824.	383.3	453.5	+0	648.1	.00	56.61	41.40	-31.24	511.0	530.6	-337.9	275.2	337.9	112.9
10 15		16.790 17.580							.00	55.21 53.30		-26.01 -19.55	557.8		~3 <b>43.2</b> ~3 <b>9</b> 0.7			
30		19.910							.00	50.13	48.54		628.1		-470.8	26.3		512.8
50		23.090	429.7	634.2	429.7			463.1	.00	46.89	53.03		715.2	454.3	-571.6			594.7
70		26.260	435.4	588,9			يَف		00.	44.05	56.83	32,19	796.3	501-1	-656.6	-266.9	666.6	676.4
85		25.610	435.0 434.2						.00	45.61	59.30		852.2		-732.8			736.9
90 95		30.180	433.2						.00	48,25 50.36	60.10		671+1 689-3		-755-2 -774-6			757.5
				•		_	_					• • •		-		-3//47		777.4
% SPAN	INCS	INCM DESREE (	DEV NEGREE I	TURN DE <b>GR</b> EE	CAMBER DEGREE	SOLIDTY	D-FAC	OMEGA-B		ROFILE		EFF-P E			MT1	M-2	Ma-T	M+-5
5	. 94	7.35	5.66	72.64		2.4322	.2662	. 1868	0328		1.3232		<u> </u>	AGAG	:3481	.7446	.4653	.4794
10	1.45	8.09	5.15 7.54	68.92	66.56	2.2842	·3422	1358	.0267		1.3289		.9313	•0000		.7179		.4562
15	2,19	8.46				2 • 1553		• 0933	.0204	.020	1.3300	.9499	.9479	.0000		.6902	-5105	.4363
30 50	3.33 4.41	8.99 9.38	10.45 12.28			1.9032		-0509	.0133		1.3324	9654	.9640	-0000		.6260		-4033
70	5,57	9.76	12.20	36.23 29.64	26.99	1.6897	•5600 •5394	• 0424 • 0436	•0150 •0150		1.3304		.9623	.0000		-5514	.6524	.4021
85	5,96	9.63	11.48	17.89	19.71	1.4421	•555 <sub>0</sub>	•1051	-0273		1.3201		.9538 .8824	0000		.5189 .4853	7250	-4415 4529
90	5,95	9.47	13.00	14.83	18-34	1-4148	5811	•1519	.0378	.0378	1.3106	.8356	8291	-0000		4669		.4420
95	5,81	9.18	14.62	12.67	17.48	1 • 3891	<b>.596</b> 8	.1842	.0437	.0437	1.3041	.7983	.7906	. 6000		.4520	. 8095	.4378
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	FFC-D							T			
			M/SEC L	BM/SEC		P01	N N	N.						3	SIA-1 2:		LANT-1 S	
		5903.0		SgFT	1.0908	1.3257	92. 38.	02.78										
STA 1	TΩĐ	5903.0		SgFT	1.0908	1 • 3257	92.384	92.78							5.0	6.0	86.05	95.02
STA	ror	5903.0		SgFT	1.0908	1 • 3257	92.384	92.78							5.0			95.02
			30.64	59FT 29·46										V*-2		6.0	86.05	
% SPAN	DIA-1 IN	DIA-2	V-1 FT/SEC	99.46 29.46 V-2 FT/SEC	VM-1 FT/SEC	VM-2 FT/SEC	VO-1 FT/SEC	V:-2 FT/SEC_	B-1 Degree	B=2 De <b>gr</b> ee	B¹→1 DEGREE	B'-2, Degree	y1≠1 FT/SEC	V'-2 FY/SEC	¥04-1 FT/SE€	6.0 V01-2 FT/SEC	86.05 U-1 FT/SEC	U=2 FT/SEC
* SPAN	DIA-1 IN 17-720	DIA-2 IN 18.580	V-1 FT/SEC 749.6	29.46 29.46 V-2 FT/SEC	VM-1 FT/SEC 1 417.8	VM-2 FT/SEC 3 432.1	V0-1 FT/SEC 622.4	V0-2 FY/SEC -15.9	B-1 DEGREE 56.13	B=2 DE <b>GR</b> EE	B'-1 <u>DEGREE</u> -21,6	B'-2, DEGREE' 6 48,82	yte1 FT/SEC 449.6	657.	Y04-1 FT/SEC	6.0 V01-2 FT/SEC	86.05 U-1 FT/SEC 5 456.0	υ−2 FY/SEC
% SPAN 5 10	DIA-1 IN 17.720 18.350	DIA-2 IN 18.580	V-1 FT/SEC 749-6 738-9	V-2 FT/SEC 433.	VM-1 FT/SEC 1 417.8	VM-2 FT/SEC 3 432-1	V0−1 FT/SEC • 622.4 2 600.9	VC-2 FT/SEC -15.9 23.7	B=1 DEGREE 56.13	B+2 DE PREE -2.11 3.13	B'-1 OEGREE -21.6	B'-2, <u>Degree</u> 6 48.82	ytej <u>FT/SEC</u> 449.6	638.	704-1 FT/SEC 166-1	V01-2 FT/SEC 9 -494. 2 -468.	96.05 U-1 FT/SEC 5 456.6 6 472.6	U-2 FY/SEC 478.6 6 492.2
* SPAN	DIA-1 IN 17.720 18.350 19.070	DIA-2 IN 18.580 19.110	V-1 FT/SEC 749-6 738-9 723-3	V-2 FT/SEC 433.	VM-1 FT/SEC 417.8 429.9	VM-2 FT/SEC 3 432. 9 433.	V0-1 FT/SEC 622.4 600.9	VC-2 FY/SEC -15.9 23.7	8-1 DEGREE 56-13 54-5 51.86	B-2 DE OREE -2.11 3.13 5.38	8'-1 <u>0E6REE</u> -21,6 -16.6 -9.9	B'-2, <u>DEGREE</u> 6 48.82 1 47.24 0 47.06	yt-1 FT/SEC 448.6 443.6	657. 638. 538.	V04-1 FT/SEC 166-1 128-1	V01-2 FT/5EC 9 -494. 2 -468. 8 -467.	96.05 U-1 FT/SEC 5 456.0 6 472.0 5 491.0	U=2 FT/SEC 4 478.6 6 492.2 2 508.5
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070 21.150	DIA-2 IN 18.580	V-1 FT/SEC 749-6 738-9 723-3 690-7	V-2 FT/SEC 433. 437. 468.	VM-1 FT/SEC 1 417.8 0 429.9 0 446.4	VM-2 FT/SEC 9 432.1 9 433.1 1 435.1	V0-1 FT/SEC 622.4 600.9 569.0	V <sub>0</sub> -2 FY/SEC -15.5 23.5 41.0 33.8	B-1 DEGREE 56.13 54.9; 54.9; 47.29	B-2 DE PREE -2.11 3.13 5.38 4.18	8'-1 <u>0EGREE</u> -21.6 -16.6 -9.9	B'-2, <u>DEGREE</u> 6 48.82 1 47.24 0 47.06 6 46.20	y1+1 FT/SEC 449.6 448.8 453.6	657. 638. 538. 700.5	V04-1 FT/SEC 166.0 128.0 77.0 -37.0	V01-2 FT/5EC 9-494. 2-468. 8-467. 9-522. 1-589.	86.05 U-1 FT/SEC 5 456.6 6 472.6 6 544.6 5 617.6	U=2 FT/SEC 4 478.6 6 492.2 2 508.5 5 556.4
% SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	DIA-2 IN 18.580 19.110 19.740 21.600 24.200 26.880	V-1 FT/SEC 749.6 723.3 696.7 655.0	V-2 FT/SEC 433. 434. 468. 479.	VM-1 FT/SEC 417.8 417.8 417.8 446.6 446.6 446.6 446.6	VM-2 FT/SEC 3 432-1 9 433-1 9 435-1 2 467-1 5 478-1	V0-1 FT/SEC 620.4 662.4 569.0 5507.6 446.0	V( -2 FY/SEC - 15.9 - 25.9 - 41.6 - 33.8 - 33.9	B-1 DEGREE 56.13 54.5; 54.6; 47.29 42.9; 39.59	B-2 DE PREE -2.11 3.13 5.38 4.14 4.05 2.55	B°→1 <u>OEGREE</u> -21.6 -16.6 -9.9 4.4 19.5 30.7	B*=2, DEGREE 6 48.82 1 47.24 0 47.06 6 49.20 8 50.94	V1=1 FT/SEC 449.6 448.6 470.6 510.2	657. 638. 538. 700. 759.	V01-1 FT/SEC 166-1 128- 5 77-1 9 -37-1 171-1	V01-2 FT/5EC 0 -494. 2 -468. 8 -467. 8 -522. 4 -589.	86.05 FT/SEC 5 456.6 6 472.6 5 491.6 5 617.7 7 690.8	U-2 FY/SEC 4 478.6 6 492.2 2 568.5 5 556.4 4 623.3
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860	DIA=2 IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900	V-1 FT/SEC 749.6 738.9 723.3 690.7 655.3 629.1	V-2 FT/SEC 433. 434. 437. 4468. 4466.	VM-1 FT/SEC 1 417.8 1 429.6 1 446.6 5 468.6 5 479.6 1 484.7 8 461.1	VM-2 FT/SEC 9 432. 9 433. 1 435. 2 467. 5 478. 7 485. 466.	V0-1 FT/SEC 622.4 600.9 559.0 557.6 440.9	V(-2 FY/SEC) -15.5 23.7 41.6 33.9 21.6	8-1 DEGREE 56-13 54-5 51-86 47-91 39-59	B-2 DE	8'-1 0EGREE -21.6 -16.6 -9.4 19.5 30.7	B1-2 DEGREE 6 45.84 1 47.24 0 47.06 6 46.20 8 50.94 8 54.03	V1-1 FT/SEC 449.6 4453.6 453.6 510.2	657. 638. 538. 700. 759. 628.	V04-1 FT/SEC 166-1 128- 77-1 9 -37-1 1-289-1 7 -352-1	V01-2 FT/5EC 0 -494. 2 -468. 8 -522. 4 -589. 4 -670. 4 -724.	86.05 U-1 FT/SEC 5 456.6 6 472.6 5 491.6 6 544.7 7 690.8 4 743.4	U=2 FY/SEC 4 478.6 6 492.2 2 598.5 5 556.4 6 623.3 1 692.4 4 744.4
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	DIA-2 IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	V-1 FT/SEC 749.6 738.9 723.3 690.7 655.0 694.6 589.0	V-2 FT/SEC 433. 437. 468. 479. 466. 466.	VM-1 FT/SEC 417.8 429.6 446.6 468.6 468.6 484.7 484.7 484.7 484.7	VM-2 FT/SEC 3 432-1 9 433-1 4 435-1 5 467-1 6 485-1 4 466-1	V0-1 FT/SEC 622.4 2 600.9 5 507.6 446.0 5 491.0 5 395.2	V0-2 FY/SEC -15.9 23.9 41.0 33.8 33.8 21.6	8-1 DEGREE 56-13 51.88 47.29 42.91 39.59 40.31	B-2 DE PREE -2.11 3.13 5.38 4.14 4.05 2.55 2.45 2.37	B*-1 <u>DEGREE</u> -21.6.6 -16.6 -9.9 4.4 19.5 30.7 37.4	B1-2 DEGREE 6 48.82 1 47.26 0 47.26 8 50.94 8 50.94 6 54.09 57.23	V1+1 FT/SEC 449.6 448.6 453.6 470.6 510.2 564.6 570.1	657. 638. 538. 700. 759. 828. 861.	V04-1 FT/SEC 166-1 128- 5 77-1 1-37-1 1-289-1 7-352-1 3-366-5	V01-22 FT/SEC 9-494. 2-468. 8-467. 8-522. 1-589. 1-724. 5-744.	U-1 FT/SEC 5 456.6 6 72.6 5 491.6 6 544.6 7 690.1 7 743.4	U=2 FT/SEC 4 478.6 6 478.2 2 508.5 5 556.4 6 623.3 744.4 6 762.4
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	DIA=2 IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900	V-1 FT/SEC 749.6 738.9 723.3 690.7 655.0 694.6 589.0	V-2 FT/SEC 433. 437. 468. 466. 466. 466. 426.	VM-1 FT/SEC 1 417.5 1 429.5 5 466.5 5 479.6 6 484.5 6 461.1 6 436.6 9 416.5	VM-2 FT/SEC 3 433. 9 433. 2 467. 2 467. 7 485. 466. 444. 3 426.	V0-1 FT/SEC 602.4 600.9 569.0 507.6 446.0 540.0 391.0 395.2	VC-2 FY/SEC -15-5 23-6 33-8 21-6 19-9 18-4	B-1 DEGREE 56-13 54-53 51-86 47-29 42-91 39-59 40-31 42-16 43-75	B=2 DE	81-1 0EGREE -21-6-6 -16-6 -9-9 4-19-5 -30-7 -37-4 40-0:4	B1-2 DEGREE 6 48.82 1 47.06 6 48.20 8 50.99 0 57.23 2 59.14	VI+1 FT/SEC 448.6 448.6 453.6 470.6 510.6 510.6 510.6 510.6 510.6	657. 638. 538. 700. 759. 828. 861. 864. 873.	V04-1 FT/SEC 166-1 128- 77-1 9 -37-1 1-289-1 7 -352-1	V01-2 FT/5EC 9-494. 2-468. 8-467. 0-529. 1-589. 1-724. 5-744. 1-762.	U-1 FT/SEC 5 456.6 6 72.6 5 491.6 5 617.7 6 900.1 7 433.1	U=2 FT/SEC 4 478.6 6 478.2 2 508.5 5 556.4 6 623.3 744.4 6 762.4
% SPAN 5 10 15 30 50 70 85 90 95	01A-1 1N 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS	DIA-2 IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	V-1 FT/SEC 79-6 730-9 723-3 690-7 655-3 629-1 604-6 589-0 576-3	V-2 FT/SEC 433. 434. 468. 479. 466. 446. 1446.	VM-1 FT/SEC 4 17.8 4 429.6 4 466.4 5 466.4 7 484.6 7 484.6 9 436.6 9 436.6 CAMBER	VM-2 FT/SEC 3 433. 9 433. 2 467. 2 467. 7 485. 466. 444. 3 426.	V0-1 FT/SEC 602.4 600.9 569.0 507.6 446.0 540.0 391.0 395.2	VC-2 FY/SEC -15-5 23-6 33-8 21-6 19-9 18-4	8-1 DEGREE 54-3 54-3 51-8 47-29 47-39 49-3	B-2 DE PREE -2.11 3.13 5.30 4.14 4.05 2.55 2.45 2.37 2.34	8'-1 <u>OEGREE</u> -21.6 -16.9 -9.9 4.4 19.5 30.7 40.0 42.4 P02/	B1-2 DEGREE 6 48.82 1 47.06 6 45.20 8 50.94 8 50.94 0 57.23 2 59.14 1 60.77	y1-1 FT/SEC 448.4 448.4 510.2 510.2 564.6 570.1 563.9	657. 638. 538. 700. 759. 828. 861. 861. 873.3	V04-1 FT/SEC 166-1 128- 5 77-1 1-37-1 1-289-1 7-352-1 3-366-5	V01-22 FT/SEC 9-494. 2-468. 8-467. 8-522. 1-589. 1-724. 5-744.	U-1 FT/SEC 5 456.6 6 72.6 5 491.6 6 544.6 7 690.1 7 743.4	U=2 FT/SEC 4 478.6 6 478.2 2 508.5 5 556.4 6 623.3 744.4 6 762.4
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17-720 18-350 19-070 23-970 26-790 28-860 29-870 30-240 INCS	DIA-2 18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE	V-1 FT/SEC 759.6 738.9 723.3 690.7 655.0 629.1 604.6 589.0 576.3 DEV	V-2 FT/SEC +33. 434. 4479. 486. 479. 486. 100. 100. 100. 100. 100. 100. 100. 10	FT/SEC 417.5 446.6 446.6 468.2 461.1 461.1 416.3 CAMBER DEGREE	VM-2 FT/SEC 3 432.1 435.1 445.1 466.1 466.1 466.1 50LIDTI	V0-1 FT/SEC 6 620.4 2 600.9 3 569.0 3 507.6 4 466.0 5 401.0 3 395.2 5 398.6	VC-2 FY/SEC -13-7 -13-8 -13-8 -13-8 -13-8 -17-4 OMEGA-B	B-1 DEGREE 56.13 51.56 47.29 42.59 42.39 42.36 43.75	B-2 DEOREE -2-11 3-13 5-30 4-14 4-05 2-55 2-45 2-37 2-34	8'-1 0EGREE -21.66 -16.6 -9.5 30.7 37.4 42.4 P02/	B1-2 DEGREE 6 48.82 1 47.24 0 47.26 6 48.20 8 50.94 8 54.09 0 57.23 2 59.16 1 60.73	VI-1 FT/SEC 449.6 448.6 453.6 510.2 564.6 570.1 563.5	657.638.638.638.638.638.638.638.638.638.638	Y04-1 FT/SEC 166-1 128-1 77-1 1-289-1 7-352-1 8-360-1 M=1	V01-2 FT/SEC 0 -494. 2 -468. 8 -467. 3 -522. 4 -589. 1 -724. 5 -724. 4 -762.	86.05  U-1  FT/SEC  5 456.6  6 472.6  5 491.6  6 544.6  7 690.4  7 761.6  2 778.6	U=2 FY/SEC 478.6 6 492.2 5 556.4 6 623.3 1 692.4 7 744.4 9 779.7 M*-2
\$ SPAN 5 10 15 30 50 70 85 90 95 \$\$SPAN 5	DIA-1 IN 17-720 18-350 19-070 23-970 26-790 28-860 29-570 30-240 INCS. DEGREE 6-42	DIA-2 18.580 19.110 19.740 21.600 26.880 28.900 30.270 INCM DEGREE 10.37	V-1 FT/SEC 799-6 738-9 723-3 690-7 655-9 699-0 576-3 DEV DEGREE 14-37	V-2 FT/SEC +33. +34. +486. +486. +426. TURN DEGREE 58.2	VM-1 FT/SEC 1 417.5 1 429.5 1 484.5 1	VM-2 FT/SEC 3 433. 9 433. 1 435. 1 466. 4 478. 1 466. 1 466. 1 466. 1 440. 1 466. 1 466. 1 466. 1 466. 1 466. 1 466.	V0-1 FT/SEC 600.9 2 600.9 5 507.6 4 446.9 4 391.0 5 398.6 7 D-FAC	YC-2 FY/SEC -15.5 -15.5 -15.5 -15.6	8-1 DEGREE 54.3 51.86 47.25 42.16 43.75 LOSS-F TOTAL	B-2 DE	B*-1 OEGREE -21.66 -16.6 -9.9 4.4 19.5 30.7 37.4 40.0 42.4 PO1.	B1-2 DEGREE 6 48.82 1 47.24 0 48.02 8 50.94 8 50.94 8 50.94 1 60.77 OMEGA-8 SHOCK	VI-1 FT/SEC 449-6 443-6 453-6 510-2 564-6 570-1 563-9 FFF-AD -0000	657.638.6538.6538.65700.759.688.66.6873.1	Y04-1 FT/SEC 166-1 128-1	V01-2 FT/SEC 9-494. 2-468. 8-589. 1-670. 1-724. 5-724. 4-724. 4-724. 4-724.	86.05  U-1 FT/SEC 5 456.6 6 72.6 6 544.6 7 690.1 7 761.1 7 778.6 M*-1	U-2 FT/SEC 478.6 492.2 558.5 6 623.3 692.4 744.4 779.7 M'-2 5 .5712
% SPAN 5 10 15 30 50 70 85 90 95	01A-1 1N 17.720 18.350 19.070 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 6.42	DIA-2 IN 18.580 19.110 19.740 21.600 26.880 28.900 29.600 30.270 INCM DEGREE 10.37	V-1 FT/SEC 799-6 738-9 723-3 690-7 655-3 699-0 576-3 DEV DEGREE 14-37 19-05	V-2 FT/SEC 433. 434. 466. 486. 476. TURN DEGREE 51.2'	VM-1 FT/SEC 1 427-5 1 427-5 1 426-5 5 466-5 5 479-5 1 481-1 1 436-6 1 416-3 CAMBER DEGREE 5 52-5 1 52-5	VM-2 FT/SEC 9 435. 9 435. 1 435. 1 466. 1 466. 1 466. 1 466. 1 466. 2 108. 2 2 108.	V0-1 FT/SEC 622.4 620.4 6569.0 559.0 559.0 5400.9 391.0 5395.2 5398.6 7 D-FAC	VC-2. FY/SEC. -15.3 21.6 33.8 21.6 19.9 18.4 17.4 0MEGA-8	8-1 DEGREE 56.1 54.5 51.86 47.25 42.16 43.75 LOSS-F TOTATO .0422	B-2 DE	8'-1 <u>OEGREE</u> -21.6 -9.9 4.4 19.5 30.7 40.0 42.4 PO2/ PO1.9 -956	B1-2 DEGREE 6 48.82 1 47.06 6 48.20 8 54.09 0 57.23 2 59.14 1 60.77 OMEGA-8 5HOCK 1 0000 4 0000	VI-1 FT/SEC 4496 448. 453.6 470.8 510.2 564.6 580.6 570.1 563.9 EFF+AD TOTAL	657.6 638.6 538.6 700.5 759.6 861.7 866.6 873.1 EFF-P STATIC .773	704-1 Ft/SEC 166. 166. 1677. 1	V01-2 FT/SEC 9-494. 2-468. 8-467. 9-522. 4-529. 1-670. 4-724. 5-744. 4-762. M-2	86.05  U-1 FT/SEC 5 456 6 472 5 491 6 544 7 690 4 743 1 761 2 778 M*-1	U-2 FY/SEC 478.6 478.6 492.2 588.5 56.4 692.4 744.4 762.4 779.7 M'-2 5 .5712 7 .5549
\$ SPAN 5 10 15 30 50 70 85 90 95 \$\$SPAN 5	DIA-1 IN 17-720 18-350 19-070 23-970 26-790 28-860 29-570 30-240 INCS. DEGREE 6-42	DIA-2 IN 18.580 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 10.37 10.37	V-1 FT/SEC 7496-7 723-3 690-7 655-1 604-6 589-0 576-3 DEV DEGREE 14-37 19-05 20-80	V-2 FT/SEC 433. 434. 468. 479. 466. 1440. TURN DEGREE 58.2 46.5	VM-1 FT/SEC 1 417.8 1 429.6 1 486.4 5 466.4 1 481.1 3 461.1 6 436.6 CAMBER DEGREE 6 2.5 5 57.0	VM-2 FT/SEC 3 433. 9 433. 1 435. 1 466. 4 478. 1 466. 1 466. 1 466. 1 440. 1 466. 1 466. 1 466. 1 466. 1 466. 1 466.	V0-1 FT/SEC 600.9 600.9 569.0 507.6 446.0 5491.0 5395.2 5398.6 7 D-FAC 9 .6194 6 .5791	VC-2 FY/SEC -15.3 41.0 33.8 33.9 19.9 18.4 17.4 0MEGA-B	8-1 DEGREE 56.13 54.89 47.29 42.31 42.16 43.75 LOSS-F TOTAL .0423	B-2 DE PREE -2-11 3-13 5-36 4-19 4-05 2-55 2-37 2-34 LOSS-F PROFILE 04-22	8'-1 <u>OEGREE</u> -21.6 -9.9 4.4 19.5 30.7 40.0 42.4 P02/ P01.5 -958	B*=2 DEGREE 6 48.82 1 47.06 6 46.20 8 50.94 8 50.94 1 60.71 OMEGA -8 5HOCK 1 .0000 9 .0000	VI-1 FT/SEC 448.4 448.4 510.2 510.2 510.2 564.6 570.1 563.5 EFF-AD TOTAL	657. 638. 538. 538. 700. 759. 828. 861. 873. EFF-P STATIC .7794. .773	Y04-1 Ft/SEC 1 128- 1 1	V01-42 FY/SEC -494. 2 -468. 3 -521. 4 -724. 5 -744. 4 -762. M-2 M-2 0 .376 3 .377 1 .380	86.05  U-1 FT/SEC 5 456. 5 472. 6 544. 5 617. 7 690. 7 743. 1 761. 2 778.  M*-1 6 .*01. 3 .*05	U-2 FY/SEC 4 478.6 6 478.2 2 508.5 5 556.4 6 23.3 6 62.4 744.4 6 762.4 779.7 M*-2 5 .5712 7 .5549 3 .5558
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	01A-1 1N 17.720 18.350 19.070 23.970 26.790 28.860 29.570 30.240 INCS. DEGREE 6.42 6.48 5.95 48 5.95 48 5.95	DIA-2 18.580 19.110 19.740 21.600 26.880 28.900 30.270 10.074 10.27 10.27 9.620 8.99	V-1 FT/SEC 799-6 738-9 723-3 690-7 655-9 629-1 604-6 589-0 576-3 DEV DEGREE 14-37 19-05 20-8 118-17	V-2 FT/SEC 433. 434. 468. 466. 466. 426. TURN DEGREE 51.2 46.5 46.5 38.8	VM-1 FT/SEC 1 417.5 1 427.5 1 426.5 5 479.5 3 461.1 9 416.5 CAMBER DEGREE 6 57.5 5 57.5 5 57.5 5 57.6	VM-2 FT/SEC 3 435.1 9 435.1 1 455.1 4 475.1 1 466.4 4 48.1 1 466.4 1 4	V0-1 FT/SEC 2 600.9 2 600.9 5 569.0 5 400.9 4 391.0 5 395.2 7 D-FAC 9 .5194 5 .5791 5 .5791 5 .5791 6 .5791 6 .5791	VC-2 FY/SEC -15.57 41.0 33.8 21.6 19.9 18.4 17.4 0MEGA-8 -1570 -1681 -1681 -1681 -1681	8-1 DEGREE 56.1 51.86 47.25 42.16 43.75 40.31 42.16 43.75 LOSS-F TOTAL 0.03/2 .0422 .0422	B-2 DE PREF -2.11 5.38 4.14 4.05 2.45 2.37 2.34 LOS FF PROFILE 0.429 0.295	B*-1 OEGREE -21.66 -9.9 4.5 19.5 30.7 37.4 40.0 42.4 -901 -915 -956 -958 -966 -986	B*-2 DEGREE 6 48.82 1 47.06 6 48.20 8 54.09 0 57.23 2 59.14 1 60.77 0 MEGA-8 1 0000 4 0000 4 0000 4 0000 2 0000	V1-1 FT/SEC 449.6 448.6 470.6 510.2 564.6 570.1 563.5 FF-AD TOTAL .0000 .0000	657-6 638-3 538-5 700-5 759-5 861-7 864-7 873-8 EFF-P STATIC -779-2 -773-7 -8300 -8700	Y04-1 FT/SEC 1 128-1 1	6.0 V01-2 FT/SEC 9-499. 8-467. 0-522. 1-724. 5-79. 1-724. 5-744. 1-762. M-2 0.376 377 380 418	U-1 FT/SEC 5 456 5 472 5 491 6 544 7 690 4 743 1 761 2 778 4 401 4 401 4 401 5 401 6 456 6 456	U-2 FT/SEC 478.6 492.2 568.5 623.3 692.4 744.4 6 762.4 779.7 M'-2 5 .5712 7 .5549 .6116 7 .6630
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 70 70 70 70	01A-1 1N-720 18-350 19-070 21-190 23-970 26-790 28-860 29-570 30-240 INCS DEGREE 6-42 5-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 4-88 3-95 4-88 4-8	DIA-2 IN 18.580 19.110 19.740 21.600 26.880 29.600 30.270 INCM DEGREE 10.37 10.74 10.27 9.62 8.99 8.11	730.64 V-1 FT/SEC 749.6 738.9 723.3 690.7 655.1 604.6 569.0 576.3 DEV DEGREE 14.37 19.05 20.80 14.75 15.34	V-2 FT/SEC 433. 437. 468. 479. 466. TURN DEGREE 51.2 46.5 43.1 37.0	VM-1 FT/SEC 1479-1 1429-1 148-2	VM-2 FT/SEC 9 435.0 9 435.0 1 435.0 1 466.1 1 466.1 1 466.1 2 2.108 2 2.108 1 2.108 1 2.108 1 2.108 1 2.108 1 3.108 1	V0-1 FT/SEC 622.4 2 600.9 5 569.0 5 507.6 5 490.0 5 391.0 6 391.0 6 395.2 7 D-FAC 9 .6194 8 .5195 8 .5791 8 .4482	VC-2 FY/SEC -15.3 41.0 33.8 33.9 19.9 18.4 17.4 0MEGA-8 1.570 1.1681 1.6675	8-1 DEGREE 55-13-55-15-55-15-55-15-55-55-55-55-55-55-55-	B-2 DE PREE -2-11 3-13 5-30 4-14 4-05 2-45 2-45 2-37 2-34 LOSS-F PROFILE 0422 0429 0217 0217	8'-1 <u>OEGREE</u> -21.6 -9.9 4.4 19.5 30.7 40.0 42.4 P02/ P01: 956 958 988	B1-2 DEGREE 6 48.82 1 47.06 6 48.20 8 54.09 0 57.23 2 59.14 1 60.77 0 MEGA-8 5HOCK 1 .0000 2 .0000 3 .0000 3 .0000	VI-1 FT/SEC 449-6 448-6 453-6 470-5 510-2 564-5 570-1 563-5 EFF+AD TOTAL -0000 -0000 -0000	657- 658- 538- 538- 700- 759- 828- 866- 866- 873-3 EFF-P STATIC -794- -774- -774- -774- -870- -8	Y04-1 Ft/SEC 166.1 168.1 177.1 17352.1	V01-42 FY/SEC 0 -494. 8 -467. 0 -522. 4 -589. 4 -724. 5 -744. 4 -762. M-2 M-2 M-2 4 -870. 4 -870. 4 -870. 4 -810. 4 -810.	00-1 FT/SEC 5 456 5 472 6 544 6 544 7 690 4 743 1 761 2 778 M*-1 6 4 4 6 8 6 8	U-2 FY/SEC 4 478.6 6 472.2 2 508.5 5 556.4 7 744.4 6 762.4 7 79.7 M'-2 5 .5712 7 .5549 3 .5558 6416 7 .6630 7 .6630
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 95 10 15 30 50 70 85 85 85 85 85 85 85 85 85 85 85 85 85	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 29.860 INCS DEGREE 6.42 6.48 3.52 3.52 3.50	DIA-2 IN 18.580 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 10.37 10.27 9.62 8.99 8.99	V-1 FT/SEC 799.66 738.9 723.3 690.7 655.0 629.1 604.6 599.0 576.3 DEV DEGREE 14.37 19.05 20.80 18.14 14.75 15.34	V-2 FT/SEC +33. +33. +34. +468. +466. TURN DEGREE 58.2 58.2 58.2 58.2 58.2 58.2 58.2 58.2	VM-1 FT/SEC 1 427-8 1 426-4 1 486-5 1 486-6 1	VM-2 FT/SEC 9 435.0 9 435.0 9 435.0 1 466.4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	V0-1 FT/SEC 620.4 620.4 620.4 620.4 620.4 630.6 540.0 539.6	VICEC 3 23.6 21.6 21.6 21.6 21.6 21.6 21.6 21.6 21	8-1 DEGREE 56.13 54.81 51.86 47.29 42.91 42.16 43.75 LOSS-F TOTAL .0422 .0429 .0227	B-2 DE PREE -2-11 3-13 3-13 4-14 4-05 2-55 2-37 2-34 LOSS-F PROFILE 0429 0295 -0217	B'-1 OEGREE -21.66 -16.9.9 4.4 19.5 30.7 40.0 42.4 PO1.5 -956 -958 -958 -988 -988	B1-2 DEGREE 6 48.82 17.06 6 46.20 8 50.94 8 50.94 8 50.94 1 0000 1 0000 1 0000 1 0000 1 0000 2 0000 2 0000 3 0000 3 0000 3 0000 3 0000 3 0000 3 0000	VI-1 FT/SEC 448.4 448.4 510-2 510-2 510-2 510-2 500-2 500-2 0000 0000 0000	657-6 638-6 538-6 700-5 700-5 759-6 861-6 861-6 873-5 EFF-P STATIC -7794 -7737 -787-7 -8300 -868-6 -7757	Y0"-1 FT/SEC 166: 128: 5 77: 1 -289: 1 -360: 6 -360: 6 -360: 6 -360: 6 -360: 6 -360: 6 -360: 6 -360: 6 -360: 6 -37: 7 -35: 8 -360: 8 -	V01-42 FY/SEC 0-494. 2-468. 3-467. 3-522. 4-589. 1-724. 4-724. 4-724. 4-724. 4-724. 4-724. 4-724. 4-724. 4-746. 4-746.	86.05  U-1 FT/SEC 5 456.6 6 72.6 5 491.6 5 491.7 7 690.7 7 761.1 2 778.1 1 761.1 2 778.1 6 .401.1 3 .405.6 6 .456.6 5 .512.1	U-2 FT/SEC 478.6 6 92.2 5 556.4 6 623.3 0 692.4 7 744.4 9 779.7 M*-2 5 .5512 .5558 .6116 7 .6630 7 .7235 0 .7503
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 70 70 70 70	01A-1 1N-720 18-350 19-070 21-190 23-970 26-790 28-860 29-570 30-240 INCS DEGREE 6-42 5-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 3-95 4-88 4-88 3-95 4-88 4-8	DIA-2 18.580 19.110 19.740 21.600 26.880 29.600 30.270 INCM DEGREE 10.37 10.27 9.62 8.99 8.11 9.90 11.7	V-1 FT/SEC 799.6 738.9 723.3 690.7 655.9 629.1 694.6 589.0 576.3 DEV DEGREE 14.37 19.05 20.8 14.75 17.87	V-2 FT/SEC +33. 434. 437. 446. 426. TURN DEGREE 58.2 51.2 46.1 38.8 37.8	VM-1 FT/SEC 1 427-8 1 426-4 1 486-5 1 486-6 1	VM-2 FT/SEC 9 435. 9 435. 9 435. 6 478. 1 466. 1 46	V0-1 FT/SEC 600.9 600.9 569.0 540.9 391.0 5398.6 7 D-FAC 9 .5194 5 .598.6 1 .4698 .4698 .4698 .4698 .4698	VC-2 FY/SEC 13-5 13-5 41-0 33-9 19-9 17-4 0MEGA-8 17-19 1-164 1-1675 1-1675 1-1675 1-1675 1-1675	8-1 DEGREE 54.1 51.8 47.25 42.16 43.3 42.16 43.75 LOSS-F TOTAL 0372 0422 0422 0423 0223	B-2 DE	B'-1 OEGREE -21.66 -19.69 4.4 19.7 37.7 40.0 42.4 P01.5 .956 .956 .986 .988 .988	DEGREE 48.82 0 47.06 6 46.20 8 50.09 0 57.23 2 59.14 1 0000 4 .0000 4 .0000 6 .0000 2 .0000 3 .0000 3 .0000 3 .0000	VI-1 FT/SEC 449-6 448-6 453-6 470-5 510-2 564-5 570-1 563-5 EFF+AD TOTAL -0000 -0000 -0000	657-6 638-6 538-6 700-5 759-6 868-6 873-8 EFF-P STATIC .794- .7737 .8300 .868-7 .840-7 .757-7 .8300 .8705 .767-7 .757-7	Y0"-1 FT/SEC 166: 128: 5 77: 0 471: 1 4289 0 437: 1 4289 0 437: 1 4289 0 4360 0 437: 1 4389 0 4360 0	V01-22 FY/SEC 0 -494. 2 -468. 8 -467. 9 -522. 4 -589. 1 -724. 5 -744. 5 -744. 6 -377. 3 -408. 4 -8. 6 -408. 6 -408. 6 -408. 6 -386.	86.05  U-1 FT/SEC 5 456.6 6 472.6 6 544.6 7 690.1 1 761.1 2 778.6 4 051 4 4 051 6 .401 6 .401 6 .405 6 .456 6 .456 6 .456 6 .456 6 .456 6 .456 2 .501	U-2 FT/SEC 478.6 492.2 5 556.4 6 623.3 6 692.4 7 744.4 6 762.4 7 779.7 M*-2 5 .5712 7 .5549 8 .6116 7 .6630 7 .7235 8 .7524

NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ RPM LBM/SEC LBM/SEC TO1 PO1 SQFT 5903.0 130.64 29.46 1,0908 1.2986 85.361 85.99

EFF-AD EFF-P

STA-1 STA-2 SLANT-1 SLANT-2 DEGREE DEGREE 11.0 12.0 90.00 90.00

# Blade-Element and Overail Performance with Stator-Hub Slit Suction 80% of Design Speed

.030 359. .790 366. .580 373. .910 389. .090 402. .260 407. .610 405. .180 403. NCM DEV	6.2 777.1 3.1 748.8 9.4 685.6 2.8 627.1 7.5 583.0 6.2 545.8 5.1 527.3 3.9 510.0	359.4 366.2 373.1 389.4 407.5 406.2 407.5 406.2 403.9 CAMBER	425.0 431.4 418.1 415.5 404.6 357.9 322.1 290.1	.0 .0 .0 .0 .0 .0 .0 .0 .0	686.1 650.5 612.0 543.2 469.6 419.6 411.9 417.0	.00 .00 .00 .00 .00 .00 .00	58.36 56.82 54.81 52.39 48.48 46.65 49.04 52.36 55.32	44.74 46.30 50.36 54.79 58.53 60.98 61.78 62.51	-27.13 -20.22 -4.14 16.63 32.34 42.24 46.63	515.7 540.2 611.0 699.1 781.1 637.6 656.7 675.0	478.4 460.5 421.0 435.3 479.9 483.5 469.1 460.6	-363.0 -390.6 -470.6 -571.3 -666.3 -732.5 -754.9 -776.2	218.2 159.4 30.6 -124.9 -256.5 -324.7	343.0 390.6 470.6 571.3 666.3 732.5 754.9	412. 432. 452. 512. 594. 776. 757. 777.
.030 359. .790 366. .580 373. .910 389. .090 402. .260 407. .610 405. .180 403. NCM DEV	9-4 805.8 6-2 777.1 3-1 748.8 9-4 685.6 2-8 627.1 7-5 591.0 6-2 545.8 5-1 527.3 3-9 510.0 V TURN C	359.4 366.2 373.1 389.4 407.5 407.5 406.2 403.9 CAMBER	425.0 431.4 418.1 415.5 404.6 357.9 322.1 290.1	.0 .0 .0 .0 .0 .0 .0	650.5 612.0 543.2 469.6 411.9 417.0	.00 .00 .00 .00 .00	56.82 54.81 52.39 46.48 46.65 49.04 52.36 55.32	44.74 46.30 50.36 54.79 58.53 60.98 61.78 62.51	-27.13 -20.22 -4.14 16.63 32.34 42.24 46.63	515.7 540.2 611.0 699.1 781.1 637.6 656.7 675.0	478.4 460.5 421.0 435.3 479.9 483.5 469.1 460.6	-363.0 -390.6 -470.6 -571.3 -666.3 -732.5 -754.9 -776.2	218.2 159.4 30.6 -124.9 -256.5 -324.7 -340.2 -357.7	363.0 390.6 470.6 571.3 666.3 732.5 754.9 776.2	432.452.6 512.6 594.5 676.7 730.6 757.6
.790 366. .580 373. .910 389. .090 402. .260 407. .610 405. .180 403. NCM DEV	3-1 748.8 9-4 605.6 2-8 627.1 7-5 583.0 6-2 545.8 5-1 527.3 3-9 510.0 V TURN (FE DEBREE	373.1 389.4 402.8 407.5 406.2 405.1 403.9 CAMBER	431.4 418.1 415.5 404.6 357.9 322.1 290.1	.0 .0 .0 .0 .0 .0	612.0 543.2 469.6 419.6 411.9 417.0 419.4	.00 .00 .00 .00 .00 .00	54.61 52.39 48.48 46.65 49.04 52.36 55.32	46.30 50.36 54.79 58.53 60.98 61.78 62.51	-20.22 -4.14 16.63 32.34 42.24 46.63 50.93	540.2 611.0 699.1 781.1 637.6 656.7	460.5 421.0 435.3 479.9 483.5 469.1	-390.6 -470.6 -571.3 -666.3 -732.5 -754.9 -776.2	159.4 30.6 -124.9 -256.5 -324.7 -340.2 -357.7	390.6 470.6 571.3 666.3 732.5 754.9 776.2	452.0 512.0 594.0 736.0 757.0
.580 373. .910 389. .090 402. .260 407. .610 406. .180 405. .180 403. NCM DEV	3-1 748.8 9-4 605.6 2-8 627.1 7-5 583.0 6-2 545.8 5-1 527.3 3-9 510.0 V TURN (FE DEBREE	389.4 402.8 407.5 406.2 405.1 403.9 CAMBER	418.1 415.5 404.6 357.9 322.1 290.1	.0 .0 .0 .0	543.2 469.6 411.9 417.6 419.4	.00 .00 .00 .00 .00	52.39 48.48 46.65 49.04 52.36 55.32	50.36 54.79 58.53 60.98 61.78 62.51	-4.14 16.63 32.34 42.24 46.63 50.93	611.0 699.1 781.1 637.6 656.7 675.0	421.0 435.3 479.9 483.5 469.1 460.6	-470.6 -571.3 -666.3 -732.5 -754.9 -776.2	30.6 -124.9 -256.5 -324.7 -340.2 -357.7	470.6 571.3 666.3 732.5 754.9 770.2	512.0 594.5 676.0 736.0 757.0
.910 389. .090 402. .260 407. .610 406. .410 405. .180 403. NCM DEV	2.8 627.1 7.5 583.0 6.2 545.8 5.1 527.3 3.9 510.0 V TURN (FE DEGREE )	402.8 407.5 406.2 405.1 403.9 CAMBER	415.5 404.6 357.9 322.1 290.1 SOLIDTY	0 0 0 0 0	469.6 419.6 411.9 417.0 419.4	.00 .00 .00 .00	46.65 49.04 52.36 55.32	54.79 58.53 60.98 61.78 62.51	16.63 32.34 42.24 46.63 50.93	699-1 781-1 637-6 856-7 675-0	435.3 479.9 483.5 469.1 460.6	-571.3 -666.3 -732.5 -754.9 -776.2	-124.9 -256.5 -324.7 -340.2 -357.7	571.3 666.3 732.5 754.9 776.2	594.5 676.5 736.6 757.5
.090 402. .260 407. .610 406. .410 405. .180 403. NCM DEV	7.5 583.0 6.2 545.8 5.1 527.3 3.9 510.0 V TURN (FE DEGREE )	407.5 406.2 405.1 403.9 CAMBER	357.9 322.1 290.1 SOLIDTY	00 00 00 00 D-FAC	417.0 417.0 417.4	.00 .00 .00	46.65 49.04 52.36 55.32	58.53 60.98 61.78 62.51	32.34 42.24 46.63 50.93	781.1 637.6 656.7 675.0	479.9 483.5 469.1 460.6	-666.3 -732.5 -754.9 -776.2	-256.5 -324.7 -340.2 -357.7	666.3 732.5 754.9 776.2	736.0 757.0 777.0
.260 407. .610 406. .410 405. .180 403. NCM DEV	7.5 583.0 6.2 545.8 5.1 527.3 3.9 510.0 V TURN (	406.2 405.1 403.9 CAMBER	357.9 322.1 2 <b>9</b> 0.1 SOLIDTY	D-FAC	411.9 417.6 419.4	.00 .00 .00	49.04 52.36 55.32	60.98 61.78 62.51	42.24 46.63 50.93	637.6 656.7 675.0	483.5 469.1 460.6	-732.5 -754.9 -776.2	-324.7 -340.2 -357.7	732.5 754.9 776.2	736. 757. 777.
.410 405. .180 403. NCM DEV REF DEGREE	5.1 527.3 3.9 510.0 V TURN (	405.1 403.9 CAMBER S	322.1 290.1 SOLIDTY	D-FAC	417.6	.00 .00	52.36 55.32	61.78 62.51	50.93	856.7 875.0	469.1 460.0	-754.9 -776.2	-340-2 -357.7	754.9 776.2	757.
.180 403. NCM DEV REF DEGMEE	3.9 510.0 V TURN C	403.9 CAMBER S	2 <b>00.1</b> SOL TOTY	D-FAC	419.4	.00 LOSS-P	55.32	62.51	50.93	675.0	460.0	-776.2	-357.7	776.2	777.
NCM DEV	V TURN (	CAMBER S	SOLIDTY	D-FAC		LOSS-P	LOSS-P						_		
REF DEGREE	EE DEGREE !	NEGRÉE			MEGA-B	LOSS-P	LOSS-P	P02/	FIFE P	·Er-Al)	OMECAE	H-1	M-2	M*-1	M*-2
REF DEGREE	EE DEGREE !	NEGRÉE			(MEGM-1)	TOTAL									
REE DEGREE	-03 76-10	71.05					DOAFTLE	Pol	TOTAL	TOTAL.					
0 .7				- 2937	- 201A	.0346	AAF	1.3216	9156	.9122	•0000	.3259	.7265	.4486	.453
9-17 4-0	70010		2.4322	.3724	1529	.0298	0298	1.3248	•9300	.9272	• 0000	.3328	.6763	.4711	.429
9.92 4.0	•03 71•87 •67 66•52		2.2841			.0232	0232	1.3257	.9860	9438	.0000	. 3391		.4938	.412
			1.9032			.0185	1.0165	1.3309		.9532	.0000			•5569	. 374
			1.6896			0095	0.005	1.3390		.9717	.0000	. 3657	.5543		. 384
1-13 12-1			1.5342			-0117	0117	1.3398	.9591	.9574	- 0000	. 3698	.5128		.422
1.46 12.2 1.31 12.3			1.4420			.0319	- 4319	1.3294			• 0000	. 3664			.422
1.31 12.3 1.13 14.3			1.4147		1743	.0423	.0423	1.3212	.6240	.8169	•0000	.3674			• <b>4</b> UE
0.63 16.7			1.3690		-2116	.0480	9460	.3140	.7842	,7756	• 0000	. 3664	.4430	.7955	.400
	-							•		•		T4-1 5	TA-2 SI	ANT-1 S	L ANT-
OR-1 MCOR-	R-1 MC/A-1	TQ2/	P02/	EFF-AU	EFF-P						3	IN-T 3	17-2 J	ECDEF !	FROFF
		TO1	PQ1	<b>S</b>	<u>S</u>									-VII-	
	<b>SeFT</b> 3,44 27,83	1.0926	1.3316	92.075	92.4							5.0	6.0	86.05	95.02
H LBM/SEC															
of	LBM/S	LAM/SEC LAM/SEC	R-1 WCOR-1 WC/A-1 TO2/ LBM/SEC LBM/SEC TO1 SeFT 5g 123,44 27.83 1.0926	LAM/SEC LBM/SEC TO1 PO1	LAM/SEC LBM/SEC TO1 POL N	LAM/SEC LAM/SEC TOS POS N	LRM/SEC LBM/SEC TO1 POL N N	LAM/SEC LAM/SEC TO1 PO1 N N	LAM/SEC LBM/SEC TOS POS 8 8	LAM/SEC LBM/SEC TOS POS N N N SAFT	LAM/SEC 1 BM/SEC TO1 PO1 N N	Lam/Sec Lam/Sec Tol POL 8 8	LAM/SEC TO1 PO1 8 8	LAM/SEC TO1 PO1 8 8	LAMISEC LBM/SEC TOL POL N N DEGREE D

#### STATOR

	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	y0-1	V0-2	8-1	B-2	81-1	B+-2	V+-1	V++2	V0'-1	A05	U-1	U-2
% SPAN	TM	TH	E+ ICEC	E+ /cer	FT/SEC I	T/SEC	T/SEC /	FY/SEC !	DEGREE	DEGREE L	<u>XEGREE</u>	DEGREE	FT/SEC	TISEC	T/SEC	TYSEC	T/SEC !	1/350
5	17.720	18.580	730.9	398.6	386.0	397.0	620.7	-28.8	58,12	-4.14	~23.07	7 21.43	#14*P	044.1	104.3	-50,02	75002	41084
10		19.110		396.7	396,5	396.1	597.5	16.1	50,42	2.39	-17.5	7 -50-52	410.0	017.2	123.0	-4/307	716.7	4,500
15		19.740			414.7		564.7	40.0	53.70	5.76	-10-09	49.78	421.7	613.3	73.8	-468.2	491.0	500.2
30		21.600			431.6				49,81	5.04	4.29	49.80	434.0	677.6	-33.0	-211.0	544.5	220.1
50		24.200					452.1		44.76	4.28	19.81	2.13 نا	485.5	745.8	-165.0	-588.8	617.1	623.1
70			61741		960.7				41.71	3-47	31.21	54.93	539.2	814.9	-279,2	-667.0	689,7	£92.1
85					427.8				43.56	2.63	38 - 19	58,42	544.4	849.5	-336.4	-723.6	743.0	744.1
90		29.600		425.9	401.2	425.7	412.6		45.84	1.87	41.01	UN.36	31.6	860.9	-348,5	-748.2	761.3	762.
95		30.270			374.3				48.18	1.68	43.90	61.92	19.5	869.7	-360.2	-767.3	778.6	779.3
			_			•					-	-					_	
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	: WEGA-D	LOSS-P	LOSS-P	P02/	OHLUA-B:	Fr-AD	_FF-P	M-3	M-5	M*-1	M, -5
% SPAN	DE GOES	NEGREE	DESOFE	DEGREE	NEGREE				TOTAL	PROFILE	POL 5	HOCK	JATOI	STATIC				
5	A 44	12.38	12.34	62.27	62.52	2-1089	.6607	.1701	.0402	+0402	.957		-0000	.7871	.6492	, 3459	.3731	.5589
10	A . 9.4	12.70	18.26	58.49	59.51	2.0323	.642n	. 1850	.0455	.0455	• 955;	.0000	.0000	•7676	.6373	,3442		,5374
15	7.79			47.94	57.00	1.9517	.6199	.1857	.0473	.0473	.957				.6238	.3457		
30	7. 91			44.76	51.69	1.7586	5422	.1165			.975	3 .0000	.0000	.8180				
50	5.40				44.62							1 .0000	. C000	.8247	• 5695	.4000		
70		10.0			44.20						. 983			.8188	3460	,4086	.4753	.7104
85	6.58		17.65	40.93	45.27	1.2872	.4998				.978			.7412	.5198			.7373
90	8.68	15.07	17.58		04	0557	5744	- 1507	-0600	• • • • • • • • • • • • • • • • • • • •	- 976		-0000	.7085	.5057	, 3686	.4673	.7450
95	11.06			45.50	46.75	1.2272	.5651	.1614	.0657	.0657	.975	• 0000	.0000	.6816	• • 4903	. 3534	• 4523	.7504
,,,	11.00	1.0,	10101	45450	, 400.0	1.77.												
		MCOR-1	HCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P							STA-1 S	TA-2 S	LANT-1	SLANT-2
					TOL			*								D	EGREE	DEGRÉE
		KPR		SOFT														_
		3900.50	123,44	27,61	1.0926	1 • 2998	84.905	34.6							11.0	15.0	90.00	90.00

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR

### 90% of Design Speed

							/(	•	•	•								
	DIA-1		V-1	<b>y-</b> 2	VH-1	VM-2	V0-1	V0-2	8-1	8-2			V*-1					U-2
% SPAN		IN	FT/SEC	FT/SEC_	FT/SEC I	FT/SEC F		FT/SEC I	DEGREE I	EGREE C	EGREE	DEGREE	FT/SEC F	TYSEC	T/SEC I	FT/SEC		
5 10		16-030		1041.5			• 0	818.5					672.5					465.2
15		16.79n 17.580		1023•3 395•8		646.1 655.2	•0		.00	50.83			698.3					
30		19.910		880.6			• •		•00				726.3 805.9					
50 50		23.090		776.9			•0	-	.0ŋ	42.44 38.14	45.60		901.0			16.9		-
70		26.260		701.6			.0		.00	33.75	49.59		986.3		-751.0			
85		28.619			638.8		.0	351.6	.00	33.08	52.27		1043.9					
90		29.410		616.3			.0		.00	33.99	53.15		1063.3					
95		30 180		589.0			•0	~ .	.0c	35.22			1001.9					
90				5			••	•	•••				20( 20)		•			
	INCS	INCH	DEV	TURIN	CAMBER !	SOLIDTY	D-FAC	OMESA-B	LOSS-P	LOSS-P	F02/	EFF-P	EFF-AF	MEGA-B	M-1	4+2	M*-1	M*-2
* SPAN	DEGREE (	DEGREE	DEGREE	DEGREE	DEGREE				TOTAL	PROFILE	201	TOTAL	TOTAL SH	OCK				
5	∽ა.51	• 40	5.64			2.4329	.1827	.1993	.0359	.0359	1.4311	.8880	.8822		.5100	.9578		.6756
10	-5.62	1.03	5.77	61.19	65.98	2.2654	.2456			.0219	1.4658	.9341		.0000	.5219	.9372	.6458	.6553
15	-4.99	1.29				2.1566	.2962				1.4645		.9574	.0000	•5333	.8982		
30	-4.06	1.61				1.9039	. 3926		.0036		1.4344			.0000	.5608	.7947		
50	-3.01	1.96				1.6898	.4486				1.3939		.9654	.0000	.5834	.6936		
70	-1.66	_ : -				1.5343	.4271	.0272			1.3589			.0000	.5920	.6233		
85	-1.06	2.61		10.72		1.4421	.4256		0193		1.3216		1,649	.0000	.5915	.5695		
90	-,99		12.63			1.4148	.4357				1.3009		.8275	.0000	.5904	.5430		
95	-1.06	2.31	13.93	3,00	17,48	1.3871	.4471	.1438	• 0346	.0334	1.2014	.//6/	.7688	.0050	.5892	.51/3	1.0028	.6328
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	FFc-D							TA-1 6	TA-2 C	LANT-1	SLANT-2
			-	LBM/SEC		P01	X	3						•	31A-7 3		EGREE	
		N7 F1		SOFT	101	1.01	*	,								·	EURLE	DEGNEC
		6650.		39.52	1.1031	1.3792	93.336	93.71							5.0	6.0	86.05	95.02
amy	TOR		213144	,,,		100,00	70,000											
0111	1016																	
0111	_	DIA-2	V-1	v-2	VM-1	VM-2	v0-1	V0-2	8-1	B-2	81-1	B1-2	V+-1	V1-2	V0'-1	V0*-2	U~1	U=2
	DIA-1							Vo-2 FT/SEC					VI-1 FT/SEC F					FT/SEC
	DIA-1 IN	IN	FT/SEC		FT/SEC	FT/SEC	TISEC	FT/SEC :		DEGREE C	EGREE	DEGREE 38.48	665.6	#30.5	225.2	-516.	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17.720 16.358	IN 18.580 19.110	FT/SEC 969.0 976.1	650.6 669.2	626.3 650.4	FT/SEC   650+1 667+6	739.4 727.7	FT/SEC 22.4 45.1	DEGRĒE ( 49.73 48.21	1.96 3.86	EGREE -19.77 -16.71	38.48 37.35	665.6 679.3	830.5 839.8	225.2 195.2	-516.6 -509.4	FT/SEC 514.2 532.5	FT/SEC 539.2 554.6
% SPAN 5 10 15	DIA-1 IN 17.720 16.350 19.070	IN 18.580 19.110 19.740	969.0 976.1 957.9	FT/SEC 650.6 669.2 685.0	626.3 650.4 674.3	FT/SEC   650•1 667•6 683•2	739.4 739.4 727.7 680.0	FT/SEC 22.4 45.1 49.7	DEGRĒE ( 49.73 48.21 45.22	1.96 3.86 4.16	=19.77 -19.77 -16.71 -10.65	DEGREE 38.48 37.35 37.44	665.6 679.3 687.0	830.5 839.8 860.5	225.2 195.2 126.6	-516.6 -509.4 -523.1	FT/SEC 514.2 532.5 553.4	FT/SEC 539.2 554.6 572.8
% SPAN 5 10 15 30	DIA-1 IN 17.720 16.350 19.070 21.140	IN 18.580 19.110 19.740 21.600	969.0 976.1 957.9 897.9	650.6 669.2 685.0 681.4	FT/SEC 626.3 650.4 674.3 701.4	FT/SEC   650.1 667.6 683.2 680.7	7/SEC 739.4 727.7 680.0 560.2	FT/SEC 22.4 45.1 49.7 29.2	DEGREE ( 49.73 48.21 45.22 38.59	1.96 3.86 4.16 2.45	=19.77 -16.71 -10.65 4.32	DEGREE 38.48 37.35 37.44 41.27	665.6 679.3 687.0 704.8	830.5 830.5 839.8 860.5 906.0	77/SEC 225.2 195.2 126.6 -53.2	-516.6 -509.4 -523.1	FT/SEC 514.2 532.5 553.4 613.5	FT/SEC 539.2 554.6 572.8 626.8
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 16.350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.600 24.200	FT/SEC 969.0 976.1 957.9 697.9 829.7	FT/SEC 650.6 669.2 685.0 681.4 657.9	626.3 650.4 674.3 701.4 688.7	FT/SEC   650.1 667.6 683.2 680.7 656.9	739.4 739.4 727.7 680.0 560.2 462.4	FT/SEC : 22.4 45.1 49.7 29.2 35.7	75 GREE   49.73 48.21 45.22 36.59 33.86	1.96 3.86 4.16 2.45 3.11	EGREE -19.77 -16.71 -10.65 4.32 18.66	DEGREE 38.48 37.33 37.44 41.27 45.40	FT/SEC 6 665.6 679.3 687.0 704.8 728.3	830.5 830.5 839.8 860.5 906.0 936.1	FT/SEC 225.2 195.2 126.6 -53.2 -233.2	FT/SEC -516.6 -509.4 -523.1 -597.7	FT/SEC 514.2 532.5 553.4 613.5 695.6	FT/SEC 539.2 554.6 572.8 626.8 702.3
% SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790	IN 18.580 19.110 19.740 21.600 24.200 26.880	FT/SEC 969.0 976.1 957.9 897.9 829.7 772.2	650.6 650.6 669.2 685.0 681.4 657.9	FT/SEC 626.3 650.4 674.3 701.4 688.7 671.0	FT/SEC   650-1 667-6 683-2 680-7 656-9 641-0	7/SEC 739.4 727.7 680.0 560.2 462.4 382,2	FT/SEC : 22.4 45.1 49.7 29.2 35.7	75 GREE (49.73 48.21 45.22 36.59 33.86	1.96 3.86 4.16 2.45 3.11	EGREE -19.77 -16.71 -10.65 4.32 18.66	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5	7/Sic   830.5 839.8 860.5 906.0 936.1	77/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2	FT/SEC -516.6 -509.4 -523.1 -597.7 -666.6	514.2 532.5 532.5 553.4 613.5 695.6	FT/SEC 539.2 554.6 572.8 626.8 702.3 780.0
\$ SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 28.860	IN 18-580 19-110 19-740 21-600 24-200 26-880 28-900	FT/SEC 969.0 976.1 957.9 897.9 829.7 772.2 724.9	650.6 669.2 685.0 681.4 657.9 641.0	FT/SEC 626.3 650.4 674.3 701.4 688.7 671.0 635.6	FT/SEC 1 650-1 667-6 683-2 680-7 656-9 641-0 663-8	7/SEC 739.4 727.7 680.0 560.2 462.4 382,2 348.6	FT/SEC 22.4 45.1 49.7 29.2 35.7 6.1	756REE ( 49.73 48.21 45.22 36.59 33.86 29.66 28.74	1.96 3.86 4.16 2.45 3.11 .54	-19.77 -16.71 -16.71 -10.65 4.32 18.66 30.47	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1	7/Sic   830.5 839.8 860.5 906.0 936.1 1005.2	77/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9	FT/SEC -516.6 -509.4 -523.3 -597.7 -666.6 -774.6	514.2 532.5 532.5 613.5 695.6 777.4	FT/SEC 539.2 554.6 572.8 6626.8 702.3 780.0 6 838.7
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 19-110 19-110 21-600 24-200 26-880 28-900 29-600	FT/SEC 969.0 976.1 957.9 897.9 829.7 772.2 724.9	FT/SEC 650.6 669.2 685.0 681.4 657.9 641.0 605.8	FT/SEC 626.3 650.4 674.3 701.4 688.7 671.0 635.6 612.4	FT/SEC   650-1 667-6 683-2 680-7 656-9 641-0 675-8 573-4	7/SEC 739,4 727,7 680,0 560,2 462,4 382,2 348,6	FT/SEC : 22.4 45.1 49.7 29.2 35.7 6.1 7 5.8	PEGREE (49.73 48.21 45.22 36.59 33.86 29.66 28.74 29.20	1.96 3.86 4.16 2.45 3.11 .54	-19.77 -16.71 -10.65 4.32 18.66 30.47 37.57	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35 54.10 56.10	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0	7/SCC   830.5 839.8 860.5 906.0 936.1 1005.2 1035.2	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -515.9	-516.6 -516.6 -509.4 -523.1 -597.7 -666.6 -774.6 -839.1	FT/SEC 514.2 532.5 553.4 613.5 695.6 777.4 837.5 858.1	FT/SEC 539.2 554.6 572.8 626.8 702.3 780.0 6 838.7 859.0
\$ SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 18-580 19-110 19-740 21-600 24-200 26-880 28-900	FT/SEC 969.0 976.1 957.9 897.9 829.7 772.2 724.9	650.6 669.2 685.0 681.4 657.9 641.0	FT/SEC 626.3 650.4 674.3 701.4 688.7 671.0 635.6 612.4	FT/SEC   650-1 667-6 683-2 680-7 656-9 641-0 675-8 573-4	7/SEC 739.4 727.7 680.0 560.2 462.4 382,2 348.6	FT/SEC : 22.4 45.1 49.7 29.2 35.7 6.1 7 5.8	75 GREE (49.73 48.21 45.22 36.59 33.86 29.66 28.74 29.20	1.96 3.86 4.16 2.45 3.11 .54	-19.77 -16.71 -10.65 4.32 18.66 30.47 37.57	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35 54.10 56.10	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0	7/SCC   830.5 839.8 860.5 906.0 936.1 1005.2 1035.2	77/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9	-516.6 -516.6 -509.4 -523.1 -597.7 -666.6 -774.6 -839.1	FT/SEC 514.2 532.5 553.4 613.5 695.6 777.4 837.5 858.1	FT/SEC 539.2 554.6 572.8 626.8 702.3 780.0 6 838.7 859.0
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 16.350 19.070 23.970 26.790 28.860 29.570 30.240	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 969.0 976.1 957.9 829.7 772.2 774.9 701.5 678.9	FT/SEC 650.6 669.2 685.0 681.4 657.9 641.0 657.8 539.8	FT/SEC 525.3 650.4 674.3 701.4 688.7 671.0 635.6 612.2	FT/SEC   650.1 667.6 683.2 680.7 656.9 641.0 673.8 539.8	739.4 739.4 727.7 680.0 560.2 462.4 382,2 348.6 348.6 338.9	FT/SEC 45.1 45.1 49.7 29.2 35.7 6.1 5.6	DEGREE 49.73 48.21 45.22 38.59 33.86 29.66 28.74 29.95	1.96 3.86 4.16 2.45 3.11 .54 05 .58	-19.77 -16.71 -10.65 4.32 18.66 30.47 37.57 40.12	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35 54.10 58.25	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7	7/5LC 830.5 839.8 860.5 906.0 936.1 1005.2 1035.2 1025.8	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -515.9 -538.7	-516.6 -509.4 -523.1 -597.7 -666.6 -774.0 -839.1 -853.7	FT/SEC 514.2 532.5 553.4 613.5 695.6 777.4 3 877.5 858.1	FT/SEC 539.2 554.6 572.8 626.8 702.3 780.0 638.7 859.0
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.900 30.270	FT/SEC 969.0 976.1 957.9 897.9 829.7 772.2 774.9 701.5 078.9	FT/SEC 659-2 669-2 681-4 657-9 641-0 605-8 573-4 TURN	FT/SEC 525.3 650.4 674.3 701.4 688.7 671.0 635.6 612.2 CAMBER	FT/SEC   650.1 667.6 683.2 680.7 656.9 641.0 673.8 539.8	739.4 739.4 727.7 680.0 560.2 462.4 382,2 348.6 348.6 338.9	FT/SEC 45.1 45.1 49.7 29.2 35.7 6.1 5.6	DEGREE 1 49.73 48.21 45.22 38.59 33.86 29.64 29.95 LOSS-P	1.96 3.86 4.16 2.45 3.11 .54 58 .65	-19.77 -16.71 -10.65 4.32 18.66 30.47 37.57 42.48	DEGREE 38.48 37.35 37.44 41.27 45.40 50.35 54.10 58.25	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7	7/SLC 830.5 839.8 860.5 906.0 936.1 1005.2 1035.2 1025.8 EFF-P	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -515.9	-516.6 -516.6 -509.4 -523.1 -597.7 -666.6 -774.6 -839.1	FT/SEC 514.2 532.5 553.4 613.5 695.6 777.4 837.5 858.1	FT/SEC 539.2 554.6 572.8 626.8 702.3 780.0 6 838.7 859.0
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	IN 18.580 19.110 19.740 21.200 24.200 26.880 28.900 29.600 30.270 INCM UEGREE	FT/SEC 969.0 976.1 957.9 829.9 772.2 724.5 678.9 DEV DEGREE	FT/SEC 650.6 669.2 681.4 657.9 641.0 605.8 573.4 539.8 TURN DEGREE	FT/SEC 525.3 650.4 674.3 701.0 635.6 612.4 588.2 CAMBER DEGREE	FT/SEC   650.1 667.6 683.2 680.7 656.9 641.0 663.8 573.4 539.8 SOLIDTY	739-4 739-4 727-7 680-0 560-2 462-2 348-6 342-2 338-9 D-FAC	FT/SEC : 22.4 45.1 49.7 29.2 35.7 6.1 7 5.8 6.1	DEGREE 49.73 48.21 45.22 38.38 29.66 28.74 29.20 29.95 LOSS-P	1.96 3.86 4.16 2.45 3.11 05 58 65 LOSS-P	-19.77 -16.71 -10.65 4.32 18.66 30.47 37.57 40.12 42.48 P02/ P01 S	DEGREE 38.48 37.33 37.44 41.27 45.40 50.35 54.10 58.25 0MEGA-B	FT/SEC 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL	### TYSLC   #### #### #### ##### ##############	77.SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -515.9 -538.7	-516.6 -516.6 -516.6 -523.1 -597.7 -666.6 -774.6 -839.3 -872.3	FT/SEC 514-2 532-5 553-4 613-5 695-6 777-4 3 837-5 858-1 877-5 M*-1	FT/SEC 539.2 539.2 554.6 572.8 626.8 702.3 780.0 638.7 859.0 678.4
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.725 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM UEGREE 4.00	FT/SEC 969-0 975-9 897-9 897-9 829-7 772-2 774-9 678-9 DEV DEGREE 18-46	FT/SEC 650.6 669.2 669.4 657.9 641.0 653.8 539.8 TURN DEGREE 47.77	FT/SEC 526.3 650.4 674.3 701.4 688.7 671.0 635.6 612.4 588.2 CAMBER DEGREE 62.55	FT/SEC   650-1 657-6 683-2 680-7 656-9 641-0 673-8 573-4 539-8 SOLIDTY 2-1071	739-4 739-4 727-7 680-0 560-2 462-2 348-6 342-2 338-9 D-FAC	FT/SEC 22.4 45.17 49.7 29.2 35.7 6.17 5.8 6.1 0MEGA-B	PEGREE 49.73 45.22 38.59 33.86 29.66 28.74 29.95 LOSS-P	1.96 3.86 4.16 2.45 3.11 .54 58 .65 Loss-P Profile	-19.77 -10.65 -1	DEGREE 38.48 37.44 41.27 45.40 50.35 54.10 58.25 0MEGA-B HOCK	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000	### TYSLC   #### #### #### ##### ##############	77.SEC 225.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -515.9 -538.7 M-1	-516.6 -516.6 -516.6 -523.1 -523.1 -666.6 -774.1 -839.1 -853.1 -872.1	FT/SEC 514.2 532.5 532.5 613.5 695.6 777.4 858.7 877.5 877.5 M*-1	FT/SEC 539.2 554.6 572.6 626.8 702.3 780.0 638.7 859.0 678.4 M*-2
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17-720 16-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE -07	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM UEGREE 4.03	FT/SEC 969-0 9757-9 897-9 829-7 7724-9 701-9 678-9 DEGREL 19-82	FT/SEC 650.6 669.0 681.0 681.0 681.0 657.9 641.0 573.8 TURNE TURNE 44.34	FT/SEC 526.3 650.4 674.3 701.4 688.7 671.0 635.6 612.4 588.2 CAMBER DEGREE 62.55 59.60	FT/SEC   650-1 667-6 683-2 680-7 656-9 641-0 573-8 539-8 SOLIDTY 2-1071 2-0286	775EC 739.4 727.7 680.0 560.2 462.4 382,2 348.6 342.9 338.9 D-FAC	FT/SEC 22.4 45.7 29.2 35.7 6.1 7 5.1 0MEGA-B	DEGREE   49.73	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRcFILE .0307	DEGREE - 19.77 - 10.652 18.66 30.47 37.57 40.42 42.42 P02/ P01 S .9387 .9387	DEGREE 38.48 37.33 37.44 41.27 45.40 50.35 54.10 58.25 0MEGA-B	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000	### T/SLC   #### #### #### #### ##### ##########	77.SEC 225.2 195.2 195.2 126.6 -53.2 -233.2 -395.2 -488.9 -518.7 M-1 .8822	-516.8 -516.8 -523.1 -597.7 -666.6 -774.6 -853.7 -872.3 M-2	FT/SEC 514-2 532-5 553-4 615-5 695-6 777-4 857-5 877-5 M*-1 	FT/SEC 539.2 559.2 559.2 6 572.8 6 626.8 702.3 780.9 8 38.7 8 59.0 6 78.4 M'-2 1 7242 7333
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5	DIA-1 IN 17-720 16-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE	IN 18.580 19.110 19.740 21.690 24.200 26.380 29.600 30.270 INCE UEGREE 4.01	FT/SEC 969.0 957.9 897.9 897.9 724.9 701.5 678.9 DEV DEGREE 18.46 119.6	FT/SEC 650.6 669.2 669.4 657.9 641.0 653.8 539.8 TURN DEGREE 47.77	FT/SEC 626.3 650.4 674.3 701.4 688.7 671.6 612.4 588.2 CAMBER DEGREE 62.55 59.60 57.10	FT/SEC   650-1 667-6 683-2 680-7 656-9 641-0 573-8 539-8 SOLIDTY 2-1071 2-0286	739.4 727.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC	FT/SEC 22.4 45.1 49.7 29.2 35.7 6.1 5.8 6.1 0MEGA-B .1294 .1210	PEGREE 1 49.73 45.22 36.59 33.86 29.66 29.74 29.95 LOSS-P TO307 .0310	1.96 3.86 4.16 2.45 3.11 .54 -05 .58 .65 Loss-P Prefile .0307 .0376	PO2/ PO18- PO2/ PO18- PO2/ PO18- -9387- -9529	DEGREE 38.48 37.38 41.27 45.40 50.35 56.10 58.25 0MEGA-B HOCK 0.0000	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000	T/SLC   330-5 839-8 860-5 906-0 936-1 1005-2 1028-2 1025-8 EFF-P STATIC -8076 -7782 -8183	77.SEC 225.2 195.6 -53.2 -235.2 -488.9 -515.9 -515.9 -538.7 M-1 .8822 .8845	FT/SEC -516.8 -509.6 -523.1 -666.6 -774.6 -853.1 -872.1 M-2	FT/SEC 514-2 553-4 613-5 643-5 677-6 777-5 M*-1 5-6183 6-6183 6-6183	FT/SEC 2 539-2 5 54-6 5 572-8 6 626-8 7 02-3 7 08-7 8 59-0 6 78-4 M'-2 1 7242 1 7242 1 7333 1 7542
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE .07 -11.09 -5.71	IN 18.580 19.110 19.740 21.600 24.200 26.889 28.900 29.600 30.270 INCM UEGREE 4.03 4.49 3.17	FT/SEC 976-0 976-0 957-9 829-7 7724-9 701-5 678-9 DEV DEGREE 19-82 19-82 11-82 11-82	FT/SEC 650-6 665-0 665-0 657-9 605-8 539-8 TURN DEGREE 44-34 41-04 30-75	FT/SEC 626.3 6526.3 701.4 688.7 635.6 612.4 588.2 CAMBER DEGREE 62.55 59.60 51.76 44.83	FT/SEC 1 650-1 667-6 683-2 680-7 656-9 641-0 675-8 573-4 539-8 SOLIDTY 2-1071 2-0286 1-7516 1-7516	779.4 739.4 739.7 680.0 560.2 462.4 38.6 342.2 338.9 D-FAC .4997 .4505 .4077	FT/SEC 422.4 49.7 29.2 35.7 6.17 5.8 6.1 0MEGA-8 .1294 .1530 .0677 .0480	PEGREE 1 49.73 45.22 36.59 33.86 29.74 29.95 LOSS-AL .0310 .0155	1.96 3.86 4.16 2.45 3.11 54 05 .58 .65 Loss-P PRCFILE .0310 .0376 .0310	EGREE -19.77 -10.65 4.32 18.66 30.47 37.57 40.12 42.48 PO2/ P01/ 9387 .9387 .959	DEGREE 38.48 37.44 41.27 45.40 50.35 54.18 56.10 58.25  OMEGA-B HOCK 0000 .0000	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD .0000 .0000 .0000	FT/SLC   830.5 830.5 830.5 860.5 906.0 906.0 1005.2 1035.2 1028.2 1025.8 EFF-P STATIC .8076 .8183 .8782 .8971	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -488.9 -515.9 -538.7 M-1 .8822 .9831 .8645 .8086 .744	FT/SEC = 116.8 = 150.8	FT/SEC 514-2 532-4 553-4 613-5 695-6 777-5 837-5 837-5 877-5 858-1 618-6 6	FT/SEC 539.2 554.6 572.8 6 26.8 7 702.3 780.0 838.7 859.0 6 78.4 M'-2 1.7242 7.7333 7.7542 7.7975 8247
\$ SPAN 5 10 15 30 50 70 85 99 95 \$ SPAN 5 10 15 30	DIA-1 IN 17-720 16-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE -07 -1-17 -4-09 -5-71 -7-89	IN 18.580 19.110 19.740 21.600 24.200 26.380 27.0 10.27 INCM UEGREE 4.03 4.44 3.17 -7.7 -7.26 -1.76	FT/SEC 969.0 957.9 897.9 899.7 7724.9 771.5 678.9 DEV DEGREE 119.61 113.91	FT/SEC 550-6 665-0 665-0 665-0 605-8 573-8 TURNE 44-06 44-34 41-06 36-14 36-14 29-12	FT/SEC 626.3 6574.3 701.4 688.7 671.6 612.4 588.2 CAMBER DEGREE 59.50 51.76 44.88	FT/SEC 1 650-1 667-6 683-2 680-7 656-9 641-0 665-8 573-4 539-8 SOLIDTY 2-1071 2-1071 2-1071 1-9458 1-7516 1-3865	739.4 737.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC .4997 .4927 .4977 .375.2	FT/SEC 479.7 29.7 29.7 29.7 5.8 6.1 0MEGA-8 .1210 .0487 .04355	PEGREE 1 49.73 45.22 36.59 33.86 29.74 29.95 LOSS - P TOTAL .0310 .01193 .0155	1.96 3.86 4.16 2.45 3.11 05 58 65 LOSS-P PRCFILE .0307 .0376 .0310 .0193 .0155	EGREE -19.77 -16.71 -10.65 -10	DEGREE 38-48 37-38 41-27 41-27 45-40 50-35 54-18 56-10 58-25 0MEGA-B HOCK -0000 -0000 -0000	FT/SEC 6 665.6 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   830.5 830.5 830.8 860.5 906.0 936.1 1005.2 1028.2 1025.8 EFF-P SYATIC .80768183 .8782 .8971 .9959	FT/SEC 225.2 195.2 126.6 -53.2 -235.2 -488.9 -515.9 -538.7 M-1 .8822 .8831 .8045 .6086 .7046	FT/SEC -516.8 -516.8 -597.1 -597.1 -666.6 -774.1 -839.1 -853.1 -872.1 M-2 -567.1 -584.600.1 -599.1 -565.	FT/SEC 514-2 532-4 613-5 695-6 777-5 858-1 877-5 M*-1 5 .6081 -6381	FT/SEC 539-2 554-6 572-8 6 626-8 702-3 780-9 6 838-7 859-0 678-4 M'-2 1 .7242 2 .7333 .7542 .7975 .8247 .8873
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 95 10 15 30 50 70 85 85 86 86 86 86 86 86 86 86 86 86 86 86 86	DIA-1 IN 17.720 19.070 21.140 23.970 28.860 29.570 30.240 INCS OEGREE .07 -1.17 -4.09 -5.71 -7.89 -6.02	IN 18.580 19.110 19.170 21.600 24.200 26.380 29.600 30.270 INCM DEGREE 4.03 4.44 3.11 -7.7 -1.75	FT/SEC 969.0 957.9 897.9 829.7 724.5 701.5 678.9 DEV DEGREE 19.6 19.6 19.6 11.3 11.3 11.3 11.3	FT/SEC 659-6 6695-0 6695-0 6695-0 605-8 573-8 TURNE DEGREE 441-06 336-15 241-06 336-75 241-06	FT/SEC 3 650.4 674.3 701.4 688.7 671.6 612.4 588.2 CAMBER DEGREE 59.0 57.10 51.76 44.83 44.83	FT/SEC   650-1 650-1 663-2 680-7 656-9 641-3 539-8 SOLIDTY 2.1071 2.0286 1.7516 1.5478 1.3865 1.2866	739.4 729.7 729.7 729.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC .4997 .4997 .4505 .4077 .3721	FT / SEC 479.7 29.2 35.7 29.2 35.7 6.1 25.8 6.1 25.0 6.1 25.0 6.77 6.4855 6.477	PEGREE 49.73 45.22 45.22 45.29 33.86 29.74 29.95 LOSS-PL 0310 00155 00185	1.96 3.86 4.16 2.45 3.11 -54 -05 -65 LOSS-P PRCFILE .0307 .0310 .0158 .0158	EGREE -19.77 -16.77 -10.65 -10	DEGREE 38.48 37.44 41.27 45.43 56.10 58.25 0MEGA-B HOCK 0000 0.0000 0.0000 0.0000	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   830.5 839.8 860.5 906.0 936.1 1095.2 1025.8 EFF-P STATIC .8076 .7076 .8183 .8782 .8971 .9059	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -488.9 -515.9 -515.9 -538.7 M-1 .8822 .8045 .8086 .7444 .6912	FT/SEC -516.8 -516.8 -523.1 -597.1 -666.6 -774.1 -839.1 -872.1 -872.1 -660.0 -599.1 -565.1 -553.1 -555.1 -5	FT/SEC 514-2 532-4 613-5 695-6 777-5 858-1 877-5 M*-1 608	FT/SEC 2 539-2 5 54-6 5 572-8 6 626-8 7 02-3 7 859-0 6 78-4 M'-2 1 7242 1 7242 1 7333 1 7542 1 7975 1 8247 1 82
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 99 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -07 -1.17 -4.09 -5.71 -7.89 -6.02 -7.64	IN 18.580 19.110 19.740 21.600 26.880 28.90 29.600 30.270 INC# UEGREE 4.01 4.41 3.17 -1.55 -1.60	FT/SEC 969.0 957.9 897.9 897.9 724.5 701.5 701.5 19.6 19.6 19.6 119.6 13.0 13.0 15.0 15.0	FT/SEC 6 6 5 6 6 6 5 6 6 6 5 7 5 6 6 6 5 7 5 6 6 6 5 7 5 7	FT/SEC 3 650.3 650.4 671.0 688.7 671.0 632.4 588.2 CAMBER 62.55 59.60 57.10 51.76 44.83 44.83 45.96	FT/SEC 1 650-1 667-6 683-2 680-7 656-9 673-8 573-4 539-8 SOLIDTY 2.1071 2.0286 1.9458 1.7516 1.5478 1.3865 1.2554	77.5EC 739.4 739.4 789.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC 4997 4828 4507 3452 3514 4507 3721	FT / SEC   49.7   49.7   49.7   29.2   35.1   -0.8   6.1   5.30   0.4557   0.4557   0.751   0.	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38-48 37-44 41-27 45-40 58-38 56-10 58-25 OMEGA-B HOCK 0000 00000 00000 00000 00000	FT/SEC 665.6 667.0 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   830.5 839.8 849.8 849.8 906.0 936.1 1005.2 1025.8 EFF-P STATIC .8076 .7782 .8183 .8782 .8971 .9059 .8642	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -488.9 -515.9 -538.7 M-1 .8822 .9831 .8046 .7444 .6912 .0458 .6233	FT/SEC = 16.8 = 159.8 = 159.7 = 156.8 = 159.3 = 159.3 = 156.8 = 159.3	FT/SEC 514-2 514-2 553-4 613-5 695-6 777-4 5 837-5 877-5 M'-1 5 .608) -618-6 -625-6 -638-	FT/SEC 539-2 539-2 554-6 572-8 626-8 702-3 780-9 638-7 859-0 678-4 M'-2 1.7242 1.7242 1.7242 1.7542 1.7542 1.7542 1.7542 1.7542 1.7542 1.7542 1.7975 1.8673 1.8673 1.9023
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 95 10 15 30 50 70 85 85 86 86 86 86 86 86 86 86 86 86 86 86 86	DIA-1 IN 17.720 19.070 21.140 23.970 28.860 29.570 30.240 INCS OEGREE .07 -1.17 -4.09 -5.71 -7.89 -6.02	IN 18.580 19.110 19.740 21.600 26.880 28.90 29.600 30.270 INC# UEGREE 4.01 4.41 3.17 -1.55 -1.60	FT/SEC 969.0 957.9 897.9 897.9 724.5 701.5 701.5 19.6 19.6 19.6 119.6 13.0 13.0 15.0 15.0	FT/SEC 659-6 6695-0 6695-0 6695-0 605-8 573-8 TURNE DEGREE 441-06 336-15 241-06 336-75 241-06	FT/SEC 3 650.3 650.4 671.0 688.7 671.0 632.4 588.2 CAMBER 62.55 59.60 57.10 51.76 44.83 44.83 45.96	FT/SEC 1 650-1 667-6 683-2 680-7 656-9 673-8 573-4 539-8 SOLIDTY 2.1071 2.0286 1.9458 1.7516 1.5478 1.3865 1.2554	77.5EC 739.4 739.4 789.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC 4997 4828 4507 3452 3514 4507 3721	FT / SEC   49.7   49.7   29.2   35.1   -0.8   6.1   -0.8   6.1   23.0   6.7   7.3   6.7   6.7   7.3   6.7   6.7   7.3   7.3	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38.48 37.44 41.27 45.43 56.10 58.25 0MEGA-B HOCK 0000 0.0000 0.0000 0.0000	FT/SEC 6 665.6 679.3 687.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   830.5 839.8 860.5 906.0 936.1 1005.2 1025.8 EFF-P STATIC .8076 .7782 .8183 .8782 .8971 .9050 .8642	FT/SEC 225.2 195.2 126.6 -53.2 -233.2 -488.9 -515.9 -538.7 M-1 .8822 .9831 .8046 .7444 .6912 .0458 .6233	FT/SEC = 16.8 = 159.8 = 159.7 = 156.8 = 159.3 = 159.3 = 156.8 = 159.3	FT/SEC 514-2 514-2 553-4 613-5 695-6 777-4 5 837-5 877-5 M'-1 5 .608) -618-6 -625-6 -638-	FT/SEC 539-2 539-2 554-6 572-8 626-8 702-3 780-9 638-7 859-0 678-4 M'-2 1.7242 .7333 .7542 .7975 .8247 .8873 .9023
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 99 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -07 -1.17 -4.09 -5.71 -7.89 -6.02 -7.64	IN 18.580 19.110 19.110 19.740 21.600 24.200 26.380 27.0 10.5 10.5 10.5 10.5 10.5 10.5 10.5 10	FT/SEC 969.0 957.9 897.9 897.7 7724.5 7724.5 678.9 DEV DEGREE 119.61 119.61 119.61 119.61 119.61 119.61 119.61	FT/SEC 500-6 605-0 6	FT/SEC 3 6526.3 6574.3 701.4 688.7 671.6 612.4 588.2 CAMBER 62.50 57.10 51.76 44.83 45.31 45.96	FT/SEC 1 657-6 683-2 680-7 656-9 641-0 665-8 573-4 539-8 SOLIDTY 2-1071 2-1071 2-1071 1-7516 1-5476 1-5476 1-2554 1-2271	739.4 739.4 729.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC .4997 .4997 .3721 .3735 .4045	FT / SEC 4 49.7 29.7 29.7 29.7 5.8 6.1 0 MEGA - 8 .1210 .0677 .04855 .0477 .0731 .0763	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38-48 37-44 41-27 45-40 58-38 56-10 58-25 OMEGA-B HOCK 0000 00000 00000 00000 00000	FT/SEC 665.6 667.0 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   330.5 330.5 830.5 906.0 936.1 1005.2 1025.2 1028.2 1028.2 1025.8 EFF-P STATIC .7782 .8183 .8762 .89750 .8642 .8078	757.5EC 225.2 195.2 126.6 -53.2 -235.2 -488.9 -515.9 -515.9 -538.7 M-1 .8645 .8086 .7444 .6233 .6015	FT/SEC -16.8 -16.8 -597.1 -597.1 -666.6 -774.6 -839.1 -853.1 -872.1 M-2 -567.1 567.1 565.1 503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -572.1 -565.1 -503.1 -50	FT/SEC 514-2 532-4 613-5 695-6 777-5 858-1 877-5 M-1 .6081 .6256 .6381 .6256 .6381 .7156 .7156	FT/SEC 539-2 554-6 572-8 6 626-8 702-3 780-9 6 838-7 859-0 6 78-4 M'-2 .7242 .7333 .7542 .7975 .8247 .8247 .9023 .8972
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 99 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -07 -1.17 -4.09 -5.71 -7.89 -6.02 -7.64	IN 18.580 19.110 19.170 21.600 24.200 26.889 29.600 30.270 INCM DEGREE 4.03 4.41 3.11 -1.77 -1.55 -1.00 -44	FT/SEC 969.0 957.9 897.9 829.7 724.5 701.5 678.9 DEGREE 19.6 1	FT/SEC 650-6 665-0 665-0 665-0 657-0 605-8 573-8 TURNE 708-75 441-06 336-15 241-06 336-15 241-06 309-75 248-63 309-75 248-63 309-75 248-63 309-75 248-63 309-75 248-63 309-75	FT/SEC 3 650.3 650.4 671.3 671.6 671.6 612.4 588.2 CAMBER DEGREE 59.0 57.10 51.76 44.83 45.31 45.96 46.76	FT/SEC   650-1 650-1 667-2 680-7 656-9 641-5-8 573-4 539-8 SOLIDTY 2.1071 2.0286 1.5478 1.3865 1.28564 1.2271 F02/	739.4 727.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC .4997 .4505 .4077 .3721 .3514 .3514 .3735 .4045	FT / SEC   49.7   29.7   29.7   29.7   29.7   5.8   6.1   294   1210   0480   0.1210   0.487   0.731	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38-48 37-44 41-27 45-40 58-38 56-10 58-25 OMEGA-B HOCK 0000 00000 00000 00000 00000	FT/SEC 665.6 667.0 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   330.5 330.5 830.5 906.0 936.1 1005.2 1025.2 1028.2 1028.2 1025.8 EFF-P STATIC .7782 .8183 .8762 .89750 .8642 .8078	757.5EC 225.2 195.2 126.6 -53.2 -235.2 -488.9 -515.9 -515.9 -538.7 M-1 .8645 .8086 .7444 .6233 .6015	FT/SEC -116.8 -116.8 -1597.1 -666.6 -774.1 -839.1 -853.1 -872.1 -600(.599).565.1 -503.1 -503.1 -172	FT/SEC 514-2 532-4 613-5 695-6 7613-5 695-6 877-5 858-1 6081 6	FT/SEC 539-2 554-6 572-8 626-8 702-3 785-0 688-7 859-0 678-4 M'-2 .7242 .7333 .7542 .7915 .8247 .8
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 99 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -07 -1.17 -4.09 -5.71 -7.89 -6.02 -7.64	IN 18.580 19.110 19.170 21.600 24.200 26.889 29.600 30.270 INCM DEGREE 4.03 4.41 3.11 -1.77 -1.55 -1.00 -44	FT/SEC 969.0 957.9 897.9 829.7 724.5 701.5 678.9 DEGREE 19.6 1	FT/SEC 6695.04 6695.04 6695.04 6695.04 6053.04 FT/SEC 1000 1000 1000 1000 1000 1000 1000 100	FT/SEC 3 650.3 650.4 671.3 671.6 671.6 612.4 588.2 CAMBER DEGREE 59.0 57.10 51.76 44.83 45.31 45.96 46.76	FT/SEC 1 657-6 683-2 680-7 656-9 641-0 665-8 573-4 539-8 SOLIDTY 2-1071 2-1071 2-1071 1-7516 1-5476 1-5476 1-2554 1-2271	739.4 739.4 729.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC .4997 .4997 .3721 .3735 .4045	FT / SEC 4 49.7 29.7 29.7 29.7 5.8 6.1 0 MEGA - 8 .1210 .0677 .04855 .0477 .0731 .0763	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38-48 37-44 41-27 45-40 58-38 56-10 58-25 OMEGA-B HOCK 0000 00000 00000 00000 00000	FT/SEC 665.6 667.0 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   330.5 330.5 830.5 906.0 936.1 1005.2 1025.2 1028.2 1028.2 1025.8 EFF-P STATIC .7782 .8183 .8762 .89750 .8642 .8078	757.5EC 225.2 195.2 126.6 -53.2 -235.2 -488.9 -515.9 -515.9 -538.7 M-1 .8645 .8086 .7444 .6233 .6015	FT/SEC -116.8 -116.8 -1597.1 -666.6 -774.1 -839.1 -853.1 -872.1 -600(.599).565.1 -503.1 -172	FT/SEC 514-2 532-4 613-5 695-6 777-5 858-1 877-5 M-1 .6081 .6256 .6381 .6256 .6381 .7156 .7156	FT/SEC 539-2 554-6 572-8 626-8 702-3 785-0 688-7 859-0 678-4 M'-2 .7242 .7333 .7542 .7915 .8247 .8
\$ SPAN 5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 99 90	DIA-1 IN 17.720 16.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -07 -1.17 -4.09 -5.71 -7.89 -6.02 -7.64	IN 18.580 19.140 19.740 21.600 24.200 26.386 28.900 30.270 INCM UEGREE 4.03 4.44 3.1722 -1.77 -1.55 -1.00 NCOR-	FT/SEC 9769-0 9769-0 957-9 897-9 829-7 7724-9 7724-9 7701-5 678-9 DEGREE 19-61 113-38 115-00 116-3 16-3 16-3 16-3 16-3 16-3 18-8	FT/SEC 650-6 665-0 665-0 665-0 657-0 605-8 573-8 TURNE 708-75 441-06 336-15 241-06 336-15 241-06 309-75 248-63 309-75 248-63 309-75 248-63 309-75 248-63 309-75 248-63 309-75	FT/SEC 3 6526.3 6574.3 701.4 688.7 671.6 612.4 588.2 CAMBER 62.55 59.60 57.10 51.76 44.83 44.83 44.83 45.91 702/	FT/SEC 1 657-6 683-2 680-7 656-9 641-0 665-8 573-4 539-8 SOLIDTY 2-1071 2-1071 2-1071 1-7516 1-5478 1-3865 1-2856 1-2571 F02/P0_	779.4 739.4 739.7 680.0 560.2 462.4 382.2 348.6 342.2 338.9 D-FAC 4997 .4505 .4071 .3721 .3735 .404.5 EFF-AC	FT / SEC & 49.7 / 29.2 / 29.2 / 29.2 / 25.1 / 29.2 / 5.8 / 6.1 / 210 / 0456 / 0456 / 0456 / 0456 / 0456 / 0456 / 0456 / 0555 / 0566 / 0	PEGREE 1 49.71 45.22 38.59 33.86 28.74 29.29 5 LOSTAL 0316 01193 01155 01291	1.96 3.86 4.16 2.45 3.11 .54 05 .65 Loss-P PRCFILE .0307 .0376 .0310 .0128 .0128	EGREE - 19.77 - 16.77 - 10.65 - 4.32 - 18.66 - 30.47 - 37.57 - 57.57 -	DEGREE 38-48 37-44 41-27 45-40 58-38 56-10 58-25 OMEGA-B HOCK 0000 00000 00000 00000 00000	FT/SEC 665.6 667.0 667.0 704.8 728.3 779.5 802.1 801.0 797.7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SLC   330.5 330.5 830.5 906.0 936.1 1005.2 1025.2 1028.2 1028.2 1025.8 EFF-P STATIC .7782 .8183 .8762 .89750 .8642 .8078	757.5EC 225.2 195.2 126.6 -53.2 -235.2 -488.9 -515.9 -515.9 -538.7 M-1 .8645 .8086 .7444 .6233 .6015	FT/SEC = 16.8 = 150.8	FT/SEC 514-2 532-4 613-5 695-6 7613-5 695-6 877-5 858-1 6081 6	FT/SEC 539.2 539.2 554.6 572.8 626.8 780.0 838.7 859.0 678.4 M'-2 .7242 .7333 .7542 .7975 .8247 .8873 .9023 .8972 SLANT-2 DEGREE

.0 109.3

.0 570.5

561.9

.0 365.3 .00 36.02 53.78 44.15 1054.1 700.8 -850.5 -487.8 850.5 853.1 .00 37.50 54.58 47.35 1073.2 697.4 -874.6 -512.9 874.6 875.4 622.8 621.5 622.8 502.7 .0 362.5 30.150 30.180 621.9 595.5 621.9 472.4 INCS INCM DEV TURN CAMBER SOLIDTY DEFAC OMEGA-B LOSS-P LOSS-P POZ/ EFF-P EFF-AD OMEGA-B M-1 M-2 M!=1 TOTAL PROFILE POI TOTAL TOTAL SHOCK % SPAN DEGREE DEGREE DEGREE DEGREE .0345 .0345 1.4280 .8948 .8894 .0000 .0209 .0209 1.4579 .9384 .9351 .0000 8.26 63.75 70.92 2.4331 .1010 .1914 .4952 .9391 .6070 -5.76 1.15 .9351 .0000 .5065 .9170 6.45 61.29 65.98 2.2855 .2525 .1050 .6330 .6374 -4.85 1.40 .9562 .0000 .0140 .0140 1.4573 .9565 -4.21 2.08 8.18 56.78 62.91 2.1567 .3082 .0639 .5173 .8793 .6593 .6133 .0056 .0056 1.4346 .9812 .0120 .0120 1.3991 .9558 .9802 .0000 .5672 30 -3.23 2.45 11.85 43.84 53.24 1.9043 .4112 .0215 .5431 .7810 .7324 2000 5452 4444 -5472 -2.19 2.79 12.30 29.61 39.12 1.6902 4749... .0422 48218 .0105 .0105 1.3735 .9515 .0000 .4563 .0379 11.97 18.30 27.00 1.5346 .9493 .5751 -6158 .9022 .5883 -.93 3.27 70 .0176 .0176 1.3479 .9063 .9022 5764 .5705 3.28 10.94 12.04 19.69 1.4422 .4458 .0670 .0000 9578 -6190 --40 .0000 .5758 9758 .0261 .0261 1.3298 .8541 .8481 • 5463 3.16 11.87 9.64 18.34 1.4148 .4578 ·1028 .6161 -.36 90 2.94 13.20 7.23 17.48 1.3891 .4718 .1398 .0341 1.3115 .7986 .7907 .0000 .5750 .5217 .9926 .6110

.00 36.05 .00 34.94

NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P RPM LBM/SEC LBM/SEC TO1 PO1 6647. 171.92 38.77 1.1059 1.3893 93.001 93.42

695.2 622.0

623.3 647.0 623.3 530.4

STA-1 STA-2 SLANT-1 SLANT-2 DEGREE DEGREE

5.0 6.0 86.05 95.02

50.34 32.03 975.0 664.3 -750.7 -352.5 750.7 761.7 52.93 40.90 1034.2 702.0 -825.2 -459.4 825.2 829.9

#### STATOR

70

25.880 26.260

28.450 28.610

29.320 29.410

622.0

DIN	IOR																	
	DIA-1	DIA=2	V=1	V=2	V4=1	VM=2	V0-1	V0=2	B=1	B=2	B1-1	41#2	¥1=1	Y1-2	V01-1	V01-2	U=1	U=2
% SPAN	IN I						FT/SEC F											T/SEC
5	17.720																514.0	
10	18.350	19.110	950.5	633.3	628.1	632.0	713.3	40.7	48.63	3.68	-16.08	39.10	653.9	814.4	181.1	-513.6	532.3	554.3
15	19.070	19.740	932.9	648.0	647.7	646.6	671.1	41.8	46.00	3.70	-10.33	39.34	659.1	836.6	118.0	-530.8	553.2	572.6
30	21.140	21.600	877.8	651.6	672.5	651 • 0	563.9	26.5	39.95	2.33	4.18	42.66	675.7	885.5	-49.3	-600.1	613.2	626.5
50	23.970	24.200	_ <del>913=4</del> .	63cal	661.0	629.1	<u> 473.7</u>	35.6	35,61	3.24	10.48	46.63	698.3	916.6	-221.6	-666.4	695.3	702.0
70	26.790	26.880	763.4	620.2	649.5	620+0	401.1	17.8	31.69	1.27	30.03	50.99	751.1	985.6	-376.0	-765.9	777.1	779.7
85	28.860	28.900	725.6			595.1	367.2	5.4	30,39	•53	36.89	54.45	783.0	1023.8	-470.0	-832.9	837.1	838.3
90	29.570	29.600	705.2	565.6	604.5	565.4	363.0	11.2	30,99	1.13	39.30	56.29	781.3	1018.9	-494.7	-847.4	857.7	858.6
95	30-240	<b>30.</b> 270	684.1	534.8	560.7	534.7	361.7	10.4	31.92	1.11	41.59	58.36	776.5	1019.2	-515.5	-867.7	877.2	878.0
																_		
W 65.44	INCS														M-1	M-2	M*=1	M1-2
% SPAN	DEGREE U	EGREE D	EGREE (	EGREE	DEGREE				TOTAL	PROFILE	PO1 SH	OCK	TOTAL S	STATIC		.,		
5	DEGREE UI	EGREE () 4.64	EGREE ( 18.32	EGREE 48.59	DEGREE 62.55	2.1075	.5229	.1322	TOTAL •0313	PROFILE .0313	PO1 SH	.0000:	TOTAL 9	5TATIC -8125	.8565	.5356	-5836	.7004
5 10	DEGREE UI	EGREE () 4.64 4.92	EGREE ( 18.32 19.63	EGREE 48.59	DEGREE 62.55 59.58	2.1075 2.0297	.5229 .5041	•1322 •1522	*0313 *0374	PROFILE .0313 .0374	P01 5H •9496 •9416	OCK -0000	.0000 .0000	6125 • 6125 • 7654	.8565 .8578	.5356 .5517	•5836 •5931	.7004 .7094
5 10 15	DEGREE UI -67 -67	EGREE () 4.64 4.92 4.15	EGREE ( 18•32 19•63 19•14	EGREE 48.59 44.95 42.30	DEGREE 62.55 59.58 57.08	2.1075 2.0297 1.9472	.5229 .5041 .4752	•1322 •1522 •1237	TOTAL •0313 •0374 •0317	PROFILE .0313 .0374 .0317	P01 5H •9496 •9416 •9539	.0000 .0000	TOTAL 9	6125 •8125 •7854 •8169	.8585 .8578 .8403	•5356 •5517 •5661	•5836 •5931 •5975	.7004 .7094 .7309
5 10 15 <b>30</b>	0EGREE 01 -67 -67 -19 -2-66	EGREE () 4.64 4.92 4.15 2.15	EGREE ( 18.32 19.63 19.14 16.30	EGREE 48.59 44.95 42.30 37.62	DEGREE 62.55 59.58 57.08 51.73	2.1075 2.0297 1.9472 1.7529	.5229 .5041 .4752 .4301	•1322 •1522 •1237 •0666	TOTAL •0313 •0374 •0317 •0190	PROFILE .0313 .0374 .0317 .0190	P01 SH •9496 •9416 •9539 •9775	.0000 .0000 .0000	.0000 .0000 .0000	•8125 •8125 •7854 •8169 •8831	.8585 .8578 .8403	•5356 •5517 •5661 •5715	•5836 •5931 •5975 •6094	.7004 .7094
5 10 15 30 50	.67 19 -2.66	EGREE 0 4.64 4.92 4.15 2.15	EGREE ( 18.32 19.63 19.14 16.30	EGREE 48.59 44.95 42.30 37.62 32.37	0EGREE 62.55 59.58 57.08 51.73	2.1075 2.0297 1.9472 1.7529	.5229 .5041 .4752 .4301	•1322 •1522 •1237 •0666	TOTAL •0313 •0374 •0317 •0190	.0313 .0374 .0317 .0190	P01 5H •9496 •9416 •9539 •9775	.0000 .0000 .0000 .0000	.0000 .0000 .0000 .0000	6125 •6125 •7854 •6169 •6831 •9057	.8565 .8576 .8403 .7890	.5356 .5517 .5661 .5715	•5836 •5931 •5975 •6094	.7004 .7094 .7309 .7767
5 10 15 30 50 70	067 .67 -67 -19 -2.66 -3.92	EGREE () 4.64 4.92 4.15 2.15 1.58	EGREE ( 18.32 19.63 19.14 16.30 14.03	EGREE 48.59 44.95 42.30 37.62 32.37	0EGREE 62.55 59.58 57.08 51.73 44.80 44.25	2.1075 2.0297 1.9472 1.7529 1.5483	.5229 .5041 .4752 .4301 .3981	•1322 •1522 •1237 •0666 •0460 •0342	TOTAL •0313 •0374 •0317 •0190 •0148 •0123	PROFILE .0313 .0374 .0317 .0190 .0148 .0123	P01 SH .9496 .9416 .9539 .9775 .9863	0CK -0000 -0000 -0000 -0000 -0000	TOTAL .0000 .0000 .0000 .0000 .0000 .0000	STATIC •6125 •7854 •8169 •8831 •9057	.8565 .8576 .8403 .7890 .7280 .6814	.5356 .5517 .5661 .5715 .5528	•5836 •5931 •5975 •6094 •6260 •6705	.7004 .7094 .7309 .7767 3042 .8662
5 10 15 30 50 70 85	067 -67 -19 -2.66 -3.92 -5.86 -6.36	EGREE 0 4.64 4.92 4.15 2.15 1.58 .25	EGREE ( 18.32 19.63 19.14 16.30 14.03 14.10	EGREE 48.59 44.95 42.30 37.62 32.37 30.41 29.86	0EGREE 62.55 59.58 57.08 51.73 44.80 44.25 45.29	2.1075 2.0297 1.9472 1.7529 1.5483 1.3867	.5229 .5041 .4752 .4301 .3981 .3700	•1322 •1522 •1237 •0666 •0342 •0472	TOTAL •0313 •0374 •0317 •0190 •0148 •0123 •0183	PROFILE .0313 .0374 .0317 .0190 .0148 .0123 .0183	P01 SH .9496 .9416 .9539 .9775 .9863 .990°	.0000 .0000 .0000 .0000 .0000	TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	STATIC •6125 •7854 •8169 •8831 •9057 •9151 •8759	.8565 .8576 .8403 .7890 .7280 .6814	.5356 .5517 .5661 .5715 .5528 .5451	•5836 •5931 •5975 •6094 •6260 •6705	.7004 .7094 .7309 .7767 .042 .8662
5 10 15 30 50 70 85	067 -67 -19 -2.66 -3.86 -6.36 -5.85	EGREE 0 4.64 4.92 4.15 2.15 1.58 .25 .15	EGREE (18.32 19.63 19.14 16.30 14.03 14.10 15.57 16.85	29.86 28.59 44.95 42.30 37.62 32.37	0EGREE 62.55 59.58 57.08 51.73 44.80 44.25 45.29	2.1075 2.0297 1.9472 1.7529 1.5483 1.3867 1.2866	.5229 .5041 .4752 .4301 .3981 .3700 .3735	.1322 .1522 .1237 .0666 .0460 .0342 .0472	TOTAL .0313 .0374 .0317 .0190 .0148 .0123 .0183 .0287	PROFILE .0313 .0374 .0317 .0190 .0148 .0123 .0183	P01 SH .9496 .9416 .9539 .9775 .9863 .9909 .9885 .9833	00K -0000 -0000 -0000 -0000 -0000 -0000	TOTAL	STATIC •6125 •7854 •6169 •6831 •9057 •9151 •6238	.8565 .8578 .8403 .7890 .7280 .6814 .6454	.5356 .5517 .5661 .5715 .5528 .5451 .5223	•5836 •5931 •5975 •6094 •6260 •6705 •6963	.7004 .7094 .7309 .7767 .042 .8662 .8903
5 10 15 30 50 70 85	067 -67 -19 -2.66 -3.92 -5.86 -6.36	EGREE 0 4.64 4.92 4.15 2.15 1.58 .25 .15	EGREE (18.32 19.63 19.14 16.30 14.03 14.10 15.57 16.85	29.86 28.59 44.95 42.30 37.62 32.37	0EGREE 62.55 59.58 57.08 51.73 44.80 44.25 45.29	2.1075 2.0297 1.9472 1.7529 1.5483 1.3867 1.2866	.5229 .5041 .4752 .4301 .3981 .3700	.1322 .1522 .1237 .0666 .0460 .0342 .0472	TOTAL .0313 .0374 .0317 .0190 .0148 .0123 .0183 .0287	PROFILE .0313 .0374 .0317 .0190 .0148 .0123 .0183	P01 SH .9496 .9416 .9539 .9775 .9863 .990°	00K -0000 -0000 -0000 -0000 -0000 -0000	TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	STATIC •6125 •7854 •6169 •6831 •9057 •9151 •6238	.8565 .8578 .8403 .7890 .7280 .6814 .6454	.5356 .5517 .5661 .5715 .5528 .5451	•5836 •5931 •5975 •6094 •6260 •6705 •6963	.7004 .7094 .7309 .7767 .042 .8662

NCOR-1 NCOR-1 NC/A-1 TO2/ PO2/ FFF-AD FFF-P RPM LBM/SEC LBM/SEC TO1 P01

STA-1 STA-2 SLANT-1 SLANT-2 DEGREE DEGREE

6647. 171.92 38.77 1.1059 1.3612 86.962 87.62

11.0 12.0 90.00 90.00

## Blade-Element and Overall Performance with Stator-Hub Slit Suction 90% of Design Speed

ROTO	R					•	90%	of De	sign S	peed		- 1140	~ ou	001011				
SPAN IN	•	N F											VI-1	T/SEC F		T/SEC F		
10 1	14.100	16.790	528.3	1000.2 977.8	528.3	608.3	•0	798.1 765.4	.00	51.51	37.71	-28.95 -24.60	667.9		-408.6	333.6 278.9	380.2	486.5
		17.580	538•9 56 <b>5</b> •0	943.0 849.0	538.9 565.0	614.7	•0	714.9 598.3	•00	49.29 44.79	39.19 43.12	-18.44 -1.95	695.5 774.6	649.0 604.6		205.5	439.6 529.7	509.4 576.9
		23.090 26.260	587.9	750.0	587.9	560.2	•0	498.5	.00	41.64	47.53	16,88	671.4	587.4	-643.0	-170.6	643.0	
85	28.450	28.610	599,4 601.9	683.0 640.9	599.4 601.9	537.7 512.6	•0	421.1 384.6	.00	38.06 36.89	51.35 53.86	40.92	960.1 1020.8	678.7	-749 <sub>4</sub> 9 -824.4	-444.4	749.9 824.4	760.9 *29.0
		29.410	601.2	616.2 589.0	601.2	482.8	• 6 • 6	382.7 382.3	.00	38.43 40.47	54.69 55.46		1041.1		-849.6 -873.6		849.6	
••	INCS	THEM	DF V		AMBER	SOLIDTY		MEGA-B			P02/		FF-AD C		M=1	M=2	M1-1	41-2
	EGREF [			DEGREE I	EGREE				TOTAL P	PROFILE	PO1	TOTAL	TOTAL SH	OCK		2.40	640	
5 10	-4.7 <sub>0</sub>	2.21 2.90	7,81 6,51			2.4335	.2081 .2696	•1855 •1030	•0334 •0205	.0334	1.4201		.8968 .9384	•000C	.4747	.9149 .8909	.5896 .6151	.6303 .6102
15	-3.09	3.20	8.42	57.64	62.90	2 - 1573	.3224	.0551	.6121	.0121	1.4524	.9651	.9632	•0000	.4954	.8556	.6409	.5889
30 50	-2.09 -1.10	3.60 3.90	11.75	45.07 30.65		1.9050	.4305 .4981	.0162	.0042 .0108		1.4363		.9852 .9599	.0000	.5197 .5416	.7623 .6662	.7131	
70	±Q7.	4,28	12.18	19.12	27.02	1.5349	4805	.0334	.0092	.0092	1.3889	9592	49573	.0000	.5528	.6033	.8847	.5625
85	.52 .55	4.21 4.07	10.94	12.94 10.47		1.4422	.4661 .4830	.0553 .0968	.0145	.0145	1.3717	•9266 •871u	.9233 .8654	•0000 •0000	.5553 .5552	.5638 .5402	.9421	
<b>90</b> 95	.45	3.83	13.55	7.78		1.3891	5021	.1401	.0339	.0339	1.3359	.8116	8037	.0000	.5547	.5144	.9784	
			MISEC I	WC/A-1 BM/SEC SOFT		P02/ P01	EFF-AD	EFF=P						S	TA-1 ST	A-2 SL DE	ANT-1 GREE	
		6640.			1.1077	1.4000	93.740	94.08							5.0	6.0	86.05	95.02
STAT	OR																	
	DIA-1	S-AIG	V-1	V-2	VM-1	VM-2	V0-1	V0-2	B-1	B=2	B1-1	81-2	V -1	V1-2	V0 -1	V0 -2	U=1	U+2
		18.580	919.9	578.9	570.5	578.7	721.5	FT/SEC 11.4	51.67	DEGREE (	-20 · 03	DEGREE 42.32	FT/SEC 1	782.7	1/SEC   208.1	-527.0	FT/SEC 513.9	FT/SEC 5 538.4
		19.110					701.8				-15.99		618.1	785.3	170.1	-515.9	531.	7 553.7
		21.600					660.2 563.3		-	4.48 2.78	-9.93 4.39			800.6 859.8		-524.6 -595.8	552.6 612.6	
		24.200	790.9	602.3	628.5	601.4	479.9	34.2	37.35	3.25	18.80	47.95	665.3	898.2	-214.7	-667.0	694.6	701.2
		26.880 28.900					412.7 381.1			1.97	30.32 36.98			264.0 1006.8		-758.4	776.3 836.2	
90	29.570	29.600	694.9				380.4			1.79				1003.9				
95	30.240	30.270	673.1	519,9	554.6	519.8	381.4		34,52			58.95		1007.6				
% SPAN ()	INCS	INCM	DEV DEGREE	TURN DEGREE		SOLIDTY	D-FAC	OMEGA-8		LOSS-P			EFF-AD		M-1	M-2	M*-1	M1-2
5	1.90	5.88	17.61	50.55	62.54	2.1078	.5493		.0321	.0321	.9506	• • • • • • • • • • • • • • • • • • • •	•0000	.8156	.8302	.5023	.550	6792
10 15	1.74	6.00				2.0305								•7909	.8271	-5155		
30	.86 -1.17	5.20 3.64				1.9485 1.7542								.8094 .8842	.8112 .7635	.5283 .5427		
50	-2.15	3.35	14.04	34.09	44.78	1.5489	,4191	.0475	.0153	.0153	.986	5 .0000	.0000	.9050	.7059	.5268	.593	7856
70 85	-3.92 -4.51					1.3869 1.2866	.3967 .3926							.9087 .8779	.6533 .6337	.5213 .5047	.640 .670	
90	-3.66	2.95				1.2554	.4180			.0286	.9839			.8338		.4784		
95	-2.66					1.2271	.4493				.982			.8173		.4515		
			BM/SEC	WC/A-1		P02/ P01	EFF-AD	EFF-P				•		!	STA-1 S		LANT-1 Egree	SLANT+2 Degree
		6640.		SQFT 37.74	1.1077	7 1.3721	87.876	86,45							11.0	12.0	90.00	90.00

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ROTOR
                                                                                        90% of Design Speed
            DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VM-1 V0-2 B-1 B-2 B-1 B-2 V-1 V1-2 V0-1 V0-2 U-1 U-2 IN IN FT/SEC FT/S
SPAN IN
            13.120 16.030 499.1 977.5 499.1 582.6
                                                                                          .0 784.9
                                                                                                               .00 53.42 37.32 -28.79 627.5 664.8 -380.4 320.1 380.4 464.8
            14.100 16.790 508.9 954.4 508.9 588.9
                                                                                                                 .00 51.88 38.77 -24.13 652.8 645.8 -408.8 264.1 408.8 464.8
                                                                                                750.9
                                                                                           .0
            15.170 17.580 519.0 922.3 519.0 591.2
                                                                                           .0
                                                                                                 707.8
                                                                                                                .00 50.12 40.27 -18.48 680.4 624.2 -439.8 198.1 439.8 509.7
            18.280 19.910 543.8 834.1 543.8 577.0
                                                                                          .0 602.3
.0 509.7
                                                                                                                .00 46.21 44.23 -2.40 759.5 579.5 -530.0 25.0 530.0 577.3 .00 43.39 48.66 16.46 656.6 563.8 -643.4 -159.8 643.4 669.5
            22-190 23-090
                                     565.4 741.8 565.4 539.8
            25.000 26.260
                                     276.1 676.4
                                                                                           .0 434.9
                                                            576.1 513.1
                                                                                                                 .0G 40.GD 52.46
                                                                                                                                                32.10 946,1 613.2 -750.4 -326.5 750.4 761.4
                                                                                                                 .00 39.33 54.95
            28.450 28.610
                                     578.5 636.6 579.5 492.5
                                                                                           .0 403.3
                                                                                                                                                40.88 1007.5 651.5 -824.9 -426.2 824.9 829.5
            29.320 29.410 578.3 614.1 578.3 463.0
                                                                                          403.3
                                                                                                                 .00 41.08 55.77 44.16 1028.2 645.6 -850.1 -449.5 850.1 852.7
            30.150 30.180 577.7 590.0 577.7 430.8
                                                                                           .0 403.1
                                                                                                                 .00 43.10 56.54 47.60 1047.8 639.0 -874.2 -471.9 874.2 875.0
              INCS INCM DEV TURN CAMBER SOLIDITY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1
                                                                                                                                                                                                M-2
                                                                                                                                                                                                            M . -1
                                                                                     TOTAL PROFILE POI TOTAL TOTAL SHECK .2232 .1824 .0329 .0329 1.4209 .9062 .9015 .0000 .4567 .8916 .5751
SPAN DEGREE DEGREE DEGREE DEGREE
              -3.66 3.25 7.99 66.10 70.90 2.4334
                                                                                                                                                                                                                       .6064
              -2.70
                          3.95
                                                             65.99 2.2858
                                                                                                                          .0204 1.4424
                                                                                                                                                                                               .8672 .6005
.8347 .6262
                                     6.99 62.90
                                                                                     .2841 .1021 .0204
                                                                                                                                                 .9435
                                                                                                                                                             .9405
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              -2.01
                          4.28 6.40 58.75
                                                            62.96 2.1571 .3413
                                                                                                .06n2 .0132
                                                                                                                          .0132 1.4467
                                                                                                                                                 .9632 .9613
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               -.97
                           4.71 11.31 46.63
                                                            53.23 1.9049
                                                                                     .4537 .0233 .0062
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                          5.03
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                           5.40 12.11 20.31 27.02 1.5349
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               1.64
                           5.16 11.88 11.61 18.33 1.4148 .5109 .1076 .0273
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                                                                                                                                                                                                            .9467 .5643
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                                                                                                                        .0358 1.3581
               1.52
                          4.90 13.45 8.94 17.48 1.3891 .5287
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                        NCOR-1 WCOR-1 WC/A-1 TO2/
                                                                       P02/
                                                                                   EFF-AD EFF-P
                                                                                                                                                                                 STA-1 STA-2 SLANT-1 SLANT-2
                        RPM LBM/SEC LBM/SEC TO1
                                                                       PQ1
                                                                                      *
                                                                                                                                                                                                       DEGREE DEGREE
                                             SOFT
                         6644. 162.71 36.69 1.1103 1.4093 93.401 93.78
                                                                                                                                                                                                        86.05 95.02
 STATOR
                                                            VM-1 VM-2 V0-1 Va-2 B-1
                                                                                                                        8-2 81-1 81-2 V1-1 V1-2 V01-1 V01-2 U-1
           DIA-1 DIA-2 V-1 V-2
                   IN FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE DEGREE FT/SEC FT/SEC
SPAN IN
                                                                                                   1.1 52.57
33.9 50.51
                                                                                                                           ·11 -19.84 44.56 577.6 764.8 196.0 -537.6 513.8 538.7
            17.720 18.580 893.8 544.1 543.2 543.9 709.8
                                                                                                                          3.50 -15.38 43.22 588.1 759.6 155.9 -520.1 532.0 554.1
            18.350 19.110 891.5 554.7 566.9 553.6 687.9
                                                                                                                                                                        770.1 100.4 -523.9 552.9 572.3
            19.070 19.740 877.5 566.6 585.6
                                                                         564.5 653.3
                                                                                                   48.5 48.12
                                                                                                                           4.91 -9.73
                                                                                                                                                42.86 594.7
                                                                         591.4 567.1
                                                                                                   31.7 43.01
                                                                                                                          3.07 4.29 45.14 610.5
3.40 18.65 48.97 637.7
                                                                                                                                                                         838.7 -45.9 -594.6 612.9 626.3
            21.140 21.600 831.2 592.3 607.6
                                                                                                   34.5 39.13
                                                                                                                                                                        884.3 -204.2 -667.1
                                                                                                                                                                                                            695.0 701.7
            23.970 24.200
                                     777.6 581.3 602.9
                                                                         580.2 490.8
            26.790 26.880 734.8 575.8 598.6
                                                                        575.4 426.2
559.9 399.6
                                                                                                   20.8 35.44
18.6 34.43
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1.91 36.86
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992.5 -457.1 -815.4
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55.65 728.8
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            28.860 28.900
                                     706.9 560.2 583.0
                                                                                                  22.8 35.56
                                                                                                                          2.44 39.16 57.37 723.3 992.0 -456.6 -835.4 857.3 858.2
            29.570 29.600 689.3 535.2 560.8 534.7 400.7
                                                                                                 18.0 36.89
                                                                                                                          2.02 41.51 59.33 715.9 999.5 -474.5 -859.7 876.8 877.6
            30.240 30.270 070.2 510.1 536.1 509.8 402.3
              INCS INCM DEV TURN CAMBER SOLIDITY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-BEFF-AD EFF-P
                                                                                                                                                                                     M-1
                                                                                                                                                                                                 M-2
                                                                                                                                                                                                             M1-1
                                                                                                                                                                                                                        M1-2
                                                                                                             TOTAL PROFILE POL STOCK TOTAL STATIC
% SPAN
          DEGREE DEGREE DEGREE DEGREE
                                                                                                .1371 .0325 .0325
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               2.76
                          6.73 16.59 52.47 62.53 2.1081 .5748
                                                                                                                                      .9524 .0000 .0000 .8195
                                                                                                                          .0388
                           6.83 19.43 47.01 59.54 2.0311 .5542 .1579 .0388
                                                                                                                                                             .0000 .7899
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                           4.02 14.87 33.38 44.23 1.3871
                                                                                     .4148
                                                                                                 .0400 .0144
                                                                                                                                                .0000
                                                                                                                                                              .0000
                                                                                                                          .0196
                                                                                                                                     .9883 .3000
                                                                                                                                                             .0000 .8839
                           4.17 16.94 32.53 45.27 1.2867 .4168
                                                                                                 .0505 .0196
                                                                                                                                                                                     .6251 .4881
                                                                                                                                                                                                             .6442 .8646
              -2.33
                                                                                                                          .0281
                                                                                                                                      .9844 .0000
                                                                                                                                                              .0000 -8460
                                                                                                                                                                                     .6077
.5883
                                                                                                                                                                                                 .4647
                                                                                                                                                                                                             .6374 .8613
                                                                                                .0706 .0281
              -1.32
                           5.28 18.16 33.12 45.96 1.2554 .4418
                                                                                                                         .0327
                                                                                                                                                              .0000 .8304
                                                                                                                                                                                                             .6283 .8648
                           6.46 18.34 34.07 46.76 1.2271 .4724
                                                                                                                                     .9832
                                                                                                                                                                                                 .4414
                                                                                                  .0804
                                                                                                             •0327
                                                                                                                                                .0000
                                                                                                                                                                                  STA-1 STA-2 SLANT-1 SLANT-2
                                                                       P02/
                                                                                    EFF-AD EFF-P
                        NCOR+1 WCOR-1 WC/A-1 TO2/
                                                                                                                                                                                                        DEGREE DEGREE
                        RPM LBM/SEC LBM/SEC TO1
                                                                       201
                                              SaFT
                                                                                                                                                                                   11.0 12.0 90.00 90.00
                         6644. 162.71 36.69 1.1103 1.3812 87.657 88.28
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## Blade-Element and Overall Performance with Stator-Hub Slit Suction

100 1	OR						90%	of De	sign Sı	oeed								
		DIA-2	V-1	V-2	VM-1	VM-2	v0=1	Vn=2	B=1	B=2	81-1	B1-2	V!-1	V1-2	VQ*-1	V01-2	U-1	U=2
<u>% SPAN</u> 5		IN 16.030	FT/SEC	FT/SEC	FT/SEC 482.9	FT/SEC F	T/SEC	786.6	DEGREE	EGREE I	DEGREE	DEGREE	FT/SEC 614.7	FT/SEC (	T/SEC	FT/SEC	FT/SEC	FT/SEC
10	14.100	16.790	492.4	937.4	492,4		.0			52.85			639.9					
15 30		17.580		905.9			.0	698.9	.00	50.48	41.19	-18.15	667.5	607.3	-439.7	189.0	439.7	509.5
50		19.910				558.9 523.3	•0	601.4 515.4	.00 00.	47.08 44.54		-2.40 16.33			-529.6	24.3 -153.9		
70	25,880	26.260	556.9	670.2		503.4	.0		.00	41.31	53.39					-318.		
85		26.610					• 0	413.0	.00	40.90	55.86	41.12	996.3	633.3	-824.6	-416.	824.6	829.2
90 95		29.410			558.8 558.2		•0	413.9 414.4	.00	42.83 44.92			1017.1			-438.		
<i>3</i> 3											_					-460.	873.9	874.7
% SPAN	INCS DEGREE	INCM	DEV			SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P PROFILE	P02/	EFF-P	EFF-AD		M-1	M-2	M*-1	M1-5
5	-2.76	4.15				2.4334	.2483	.2116	.0376	.0376	1.4159	.8955		-000K	.4413	.874	.5625	.5820
10	-1.79	4.87		64.39	65.97	2.2859	3032	.1195	.0237	.0237	1.4357	,9361	. 9328		4509			
15 30	-1.09 03			59.35		2.1572	.3506		.0132		1.4407				.4601			
50 50	.97			47,58 33,28		1.69048	.4685 .5357	.0308 .0453	.0081		1.4341	,9765 .9585			.4821 .5017			
70	2.11	6.32	12.22	21,12	27.02	1.5349	5167	. 5423	.0116		1.4082				511			
85	2.52 2.53					1.4422	.5084		.0191		1.3957	.9132			.5136			
90 95	2.41		12.19		18.33 17.48	1.3891	.5282 .5458	•1160 •1548	•0293 •0373		1.3622				.5133 .5128			
55							•	-	*****************		110004	.010,	10034			• • • • • • • • • • • • • • • • • • • •	3 .7321	19392
			#COR-1 BM/SEC			P02/ P01	EFF-AD	EFF-P						•	STA-1 S		SLANT-1	
				SOFT									···				DEGREE	DEGREE
		6643.	158.69	29.78	1.1115	1.4123	92.990	95,40							5.0	6.0	86.05	95.02
STA	TOR																	
W CDAN	DIA-1	DIA-2	V-1	v-2	VM-1	VM-2	V0-1	Vn-2	B-1	B-2	B*-1	81-2	V'-1	V1-2	V0'-1	V01-2	U-1	U=2
% SPAN 5	IN	IN	FT/SEC	FT/SEC	FT/SEC.	FT/SEC F	T/SEC	FT/SEC C	EGREE (	EGREE C	EGREE I	DEGREE	FT/SEC !	FT/SEC F	T/SEC	FT/SEC	FT/SEC	FT/SEC
5 10	IN 17.720	IN	FT/SEC 876.3	FT/SEC	FT/SEC	521.0	V0-1 T/SEC 711.6 685.7	FT/SEC C	54.30 51.84	EGREE C	EGREE   -21.16 -15.95	DEGREE	548.5 560.5	753.3 743.3	198.0 153,8	FT/SEC -544.( -522.;	FT/SEC 513.6 531.9	538.5 553.9
5 10 15	17.720 16.350 19.070	18.580 19.110 19.740	876.3 872.1 858.2	FT/SEC 521.2 530.1 540.8	511.4 538.7 565.5	521.0 526.9 538.3	711.6 685.7 645.3	FT/SEC 0 -5.5 31.7 52.4	54.30 51.84 48.76	EGREE ( 62 3.41 5.56	21.16 -21.95 -15.95 -9.31	0EGREE 46.24 44.63 44.00	548.5 560.5 573.6	753.3 743.3 748.3	198.0 198.0 153,8 92.6	FT/SEC -544.( -522.; -519.(	FT/SEC 513.6 531.9 552.7	538.5 553.9 572.1
5 10 15 30	17.720 18.350 19.070 21.140	IN 18.580 19.110 19.740 21.600	876.3 876.3 872.1 858.2 814.5	521.2 521.2 530.1 540.8 571.2	511.4 538.7 565.5 585.3	521.0 526.9 538.3 570.1	711.6 685.7 645.3 566.2	FT/SEC ( -5.5 31.7 52.4 34.6	54.30 51.84 48.76 44.03	0EGREE ( 62 3.41 5.56 3.47	21.16 -21.16 -15.95 -9.31 4.52	9EGREE 46.24 44.63 44.00 46.04	548.5 560.5 573.6 588.4	753.3 753.3 743.3 748.3 821.6	7/SEC 198.0 153.8 92.6 -46.6	FT/SEC -544.( -522.; -519.( -591.!	FT/SEC 513.6 531.9 552.7 612.7	538.5 538.5 553.9 572.1 626.1
5 10 15	17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740	876.3 872.1 858.2 814.5 766.8	521.2 521.2 530.1 540.8 571.2 567.9	511.4 538.7 565.5 585.3 584.4	521.0 521.0 526.9 538.3 570.1 566.6	711.6 685.7 645.3	FT/SEC ( -5.5 31.7 52.4 34.6 37.7	54.30 51.84 48.76 44.03	EGREE ( 62 3.41 5.56	21.16 -21.16 -15.95 -9.31 4.52 18.69	0EGREE 46.24 44.63 44.00	548.5 548.5 560.5 573.6 588.4 618.2	753.3 743.3 748.3 821.6 872.8	T/SEC 198.0 153.8 92.6 -46.6 -198.5	FT/SEC -544.( -522.; -519.(	FT/SEC 513.6 531.9 552.7 612.7	FT/SEC 538.5 553.9 572.1 626.1 701.4
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900	FT/SEC 876.3 872.1 858.2 814.5 766.8 725.5 698.4	521.2 521.2 530.1 540.8 571.2 567.9 563.0	511.4 538.7 565.5 585.3 584.4 581.7	521.0 521.0 526.9 538.3 570.1 566.6 562.6	711.6 711.6 685.7 645.3 566.2 496.3 433.6	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4	DEGREE ( 54.30 51.84 48.76 44.03 40.32 36.70 35.86	2.24 2.36 2.41 5.56 3.47 3.81 2.24	21.16 -15.95 -9.31 4.52 18.69 30.47	DEGREE 46.24 44.63 44.00 46.04 49.49 53.37 56.17	FT/SEC 548.5 548.5 560.5 573.6 588.4 618.2 675.7	FT/SEC   753.3 743.3 748.3 821.6 872.8 943.4 981.5	T/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9	FT/SEC -544.( -522.; -519.( -591.) -663. -757.; -615.	FT/SEC 513.6 531.9 552.7 612.7 694.7 776.5 836.5	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	FT/SEC 876.3 872.1 858.2 814.5 766.8 725.5 698.4 681.6	FT/SEC 521.2 530.1 540.8 571.2 567.9 563.0 546.9 524.1	511.4 538.7 565.5 585.3 584.4 581.7 566.0 543.4	521.0 526.9 538.3 570.1 566.6 562.6 546.4 523.4	711.6 645.7 645.3 566.2 496.3 433.6 409.1	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3	54.30 51.84 48.76 44.03 40.32 36.70 35.86 37.13	2.24 2.98 2.98	21.16 -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06	DEGREE 46.24 44.63 44.00 46.04 49.49 53.37 56.17 57.78	548.5 560.5 573.6 588.4 618.2 675.7 709.4 703.0	753.3 743.3 748.3 821.6 872.8 943.4 981.5 981.9	T/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9 -427.4 -445.8	FT/SEC -544.( -522.; -519.( -591.) -663.( -757.) -615.( -830.(	FT/SEC 513.6 531.9 552.7 612.7 694.7 776.5 836.5 857.1	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6 857.9
5 10 15 30 50 70 85	1Ñ 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 876.3 872.1 858.2 814.5 765.5 698.4 663.9	FT/SEC 521.2 530.1 540.8 571.2 567.9 563.0 546.9 524.1 501.2	511.4 511.4 538.7 565.5 585.3 584.4 581.7 566.0 543.4	521.0 521.0 528.9 538.3 570.1 566.6 562.6 546.4 523.4	711.6 711.6 685.7 645.3 566.2 496.3 433.6 409.1 411.3	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0	54.30 51.84 48.76 44.03 40.32 36.70 35.86 37.13 38.53	2.98 2.86 2.96 3.47 3.81 2.24 2.36 2.86	-21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71	96.24 44.63 44.63 44.00 46.04 49.49 53.37 56.17 59.58	548.5 548.5 560.5 573.6 588.4 618.2 675.7 709.4 703.0	753.3 743.3 748.3 821.6 872.8 943.4 981.5 988.5	198.0 153.8 92.6 -46.6 -198.5 -342.9 -427.4 -445.8	FT/SEC -544.( -522.) -519.( -591.) -663.( -757.) -815.( -852.)	FT/SEC 513.6 531.9 552.7 612.7 694.7 776.5 2 836.5 8 857.1	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6 857.6 877.3
5 10 15 30 50 70 85 90 95	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270	FT/SEC 876.3 872.1 858.2 814.5 766.8 725.5 698.4 681.6 663.9	FT/SEC 521.2 530.1 540.8 571.2 567.9 563.0 546.9 524.1 501.2	511.4 538.7 565.5 585.3 584.4 581.7 566.0 543.4 CAMBER	521.0 521.0 528.9 538.3 570.1 566.6 562.6 546.4 523.4 500.5	711.6 685.7 645.3 566.2 496.3 433.6 409.1 411.3 D-FAC	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 -22.0 22.4 27.3 25.0 OMEGA-B	54.30 51.84 48.76 44.03 40.32 36.70 35.86 37.13 38.53	2.36 2.36 3.41 5.56 3.47 3.81 2.24 2.36 2.36	-21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71	96.24 44.63 44.00 46.04 49.49 53.37 56.17 57.78 59.58	548.5 560.5 573.6 588.4 618.2 675.7 709.4 703.0 695.8	753.3 743.3 748.3 821.6 872.8 943.4 981.5 988.5 EFF-P	T/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9 -427.4 -445.8	FT/SEC -544.( -522.; -519.( -591.) -663.( -757.) -615.( -830.(	FT/SEC 513.6 531.9 552.7 612.7 694.7 776.5 836.5 857.1	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6 857.9
5 10 15 30 50 70 85 90	1Ñ 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE	FT/SEC 876.3 872.1 858.2 814.5 745.5 698.4 681.6 663.9 DEV DEGREE	FT/SEC 521.2 530.1 540.8 571.2 563.0 546.9 524.1 501.2 TURN DEGREE	511.4 538.7 565.5 585.3 584.4 581.7 566.0 543.4 CAMBER DEGREE 62.54	521.0 528.9 538.3 570.1 566.6 562.6 546.4 523.4 520.5 SOLIDTY	711.6 645.7 645.3 566.2 496.3 433.6 409.1 411.3 413.5 D-FAC	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.0 0MEGA-B	54.30 51.84 48.76 44.032 36.70 35.86 37.13 38.53 LOSS-P	7-62 3-41 5-56 3-47 3-81 2-24 2-36 2-98 2-86 LOSS-P	-21.16 -21.16 -15.95 -9.31 4.52 4.52 30.47 37.06 39.37 41.71 P02/5	DEGREE 44.63 44.00 46.04 49.49 53.37 56.17 57.78 59.58	548.5 560.5 573.6 618.2 675.7 709.4 703.0 695.8 EFF-AD	753.3 743.3 748.3 821.6 872.8 943.4 981.5 981.9 988.5 EFF-P STATIC	T/SEC 198.0 153.8 92.6 -468.5 -342.9 -427.4 -445.8 -463.0 M-1	FT/SEC -544.( -522.; -519.( -591.; -630.( -757.; -830.( -852.) M-2	FT/SEC 513.6 531.9 552.7 612.7 7694.7 776.5 836.5 876.5 M'-1	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6 857.9 877.3
5 10 16 30 50 70 85 90 95	1Ñ 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.40 3.73	IN 18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 8.37	FT/SEC 876.3 872.1 818.2 818.2 766.8 725.5 698.4 681.6 663.9 DEV DEV DEREE 19.35	FT/SEC 521.2 530.1 540.8 571.2 567.9 563.0 546.9 524.1 TURN DEGREE 548.43	511.4 538.7 565.5 585.3 584.4 581.7 566.0 543.4 CAMBER DEGREE 62.54 59.55	521.0 528.9 538.3 570.1 566.6 562.6 546.4 523.4 520.5 SOLIDTY	711-6 685-7 645-3 566-3 496-3 433-6 409-1 411-3 413-5 D-FAC	FT/SEC ( -5.5 -31.7 -52.4 -34.6 -37.7 -22.0 -22.4 -27.3 -25.0 OMEGA-B	54.30 51.84 48.76 44.03 40.32 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0398	2.24 2.36 2.36 2.36 2.36 2.36 2.36 2.36 2.36	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 PO2/ P0530 .9461	DEGREE  46.24  44.63  44.00  45.49  53.37  56.17  57.78  59.58	548.5 560.5 573.6 588.4 618.2 675.7 709.4 703.0 695.8 EFF-AD TOTAL .0000	FT/SEC   753.3 743.3 748.3 821.6 872.8 943.4 981.5 981.9 988.5 EFF-P STATIC .8201 .7909	T/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9 -427.4 -445.8 -463.0 M-1	FT/SEC -544.( -522.; -519.( -591.) -663.; -757. -815. -852.( M-2	FT/SEC 513.6 513.6 553.7 614.7 76.5 836.5 847.1 876.5 M'-1	FT/SEC 538.5 553.5 572.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2
5 10 15 30 50 70 85 90 95 % SPAN 5 10	1Ñ 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE 4.40 3.73	IN 18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 8.37 7.98	FT/SEC 876.3 878.2 814.5 766.8 725.5 698.4 681.6 663.9 DEV DEGREE 15.87 15.87 20.98	FT/SEC 521.2 530.8 571.2 567.9 567.9 524.1 501.2 TURN DEGREE 548.91 48.21	FT/SEC 511.4 518.7 565.5 585.3 584.4 581.7 566.0 519.4 CAMBER 0EGREE 62.55 57.03	521.0 521.0 526.9 538.3 570.1 566.6 562.6 546.4 523.4 500.5 SOLIDTY	711.6 685.7 645.3 566.2 496.3 433.6 409.1 411.3 413.5 D-FAC	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0 0MEGA-B .1402 .1540	54.30 54.30 54.30 54.84 44.03 40.32 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0393	2.41 2.47 3.41 3.47 3.81 2.24 2.36 2.36 2.36 LOSS-P PROFILE 0332 .0393	-21.16 -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 5 .9530	DEGREE  46.24  44.63  44.00  49.49  53.37  56.17  57.78  59.58  DMEGA~B  10CK  .0000 .0000	548.5 560.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000	753.3 743.3 748.3 821.6 872.8 943.4 981.5 981.9 988.5 EFF-P STATIC .8201 .7909 .7898	FT/SEC 198.0 153.8 53.8 -46.6 -198.5 -342.9 -427.4 -445.8 -463.0 M-1 .7852 .7808 .7679	FT/SEC -544.( -522.; -519.! -591.! -663.; -757.; -810.( -852.) M-2 .450; .458; .468	FT/SEC 513.6 513.6 551.7 6 512.7 6 612.7 7 694.7 776.5 2 836.5 8 857.1 8 876.5 M'-1 5 .4946 7 .5959 9 .5153	FT/SEC 538.5 553.5 552.1 626.1 701.4 779.1 837.6 857.9 877.3 M1-2 .6511 .6432
5 10 16 30 50 70 85 90 95	1Ñ 17.720 18.3070 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE 4.40 3.73 2.75	IN 18,580 19,110 19,740 21,600 24,200 26,880 29,600 30,270 INCM DEGREE 8,37 7,99 7,08	FT/SEC 876.3 872.1 858.2 814.5 766.8 725.5 698.4 681.6 663.9 DEV DEGREE 15.87 19.38 20.38 17.44	FT/SEC 521.2 530.8 571.2 540.8 571.2 567.9 546.9 524.9 501.2 TURN <u>DEGREE</u> 54.91 48.43 49.21	FT/SEC 511.4 514.5 565.5 584.4 584.4 584.4 584.4 584.4 584.4 584.4 584.4 584.6 62.54 59.54 59.55 57.03 51.68	521.0 521.0 526.9 538.3 570.1 566.6 546.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557	711.6 (85.7 545.3 566.2 496.3 439.6 409.1 411.3 D-FAC .5947 .5726 .5433 4822	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 27.3 25.0 0MEGA-B .1402 .1620 .1540 .0762	54.30 51.84 48.76 44.03 40.32 36.76 35.76 37.13 38.53 LOSS-P TOTAL .0332 .0398 .0217	2.24 2.36 3.47 3.81 2.24 2.36 2.98 2.36 LOSS-P PROFILE 0332 .0393	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 S .9530 .9461 .9500	95337 55-37 55-37 55-37 55-38 59-58 0MESA~B 10CK .0000 .0000	548.5 560.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000	753.3 743.3 748.3 821.6 872.8 943.4 981.9 988.5 EFF-P STATIC .8201 .7909 .7898 .8744	T/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9 -427.4 -445.8 -463.0 M-1	FT/SEC -544. -524. -519. -519. -591. -637. -637. -815. -815. -82. M-2 450. 468. 468. 468.	FT/SEC 513.6 531.6 531.6 532.7 694.7 76.9 2836.5 876.5 M'-1 5.059 9.5153	FT/SEC 538.5 553.9 572.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .6437 .7151
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	1Ñ 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.40 3.73 2.75 1.52 +.82	IN 18.580 19.110 19.740 21.600 26.880 28.900 29.600 30.270 INCM DEGREE 8.37 7.08 6.32 6.32 5.28	FT/SEC 876.3 876.3 828.2 814.5 766.8	FT/SEC 521-2 530-8 540-8 571-2 567-9 546-9 524-1 501-2 TURNE 54-91 43-21 40-56 36-54	511.4 534.7 565.5 585.3 584.4 581.7 566.0 543.4 519.4 CAMBER 0EGREE 59.55 57.03 54.73 44.22	521.0 528.9 538.3 570.1 566.6 546.4 523.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.3872	711.6 (45.7 745.3 7645.3 566.2 496.3 433.6 409.1 411.3 413.5 D-FAC .5947 .5947 .5433 .4822 .4510 .4280	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0 0MEGA-B .1402 .1540 .0762 .0536 .0448	54.30 51.84 48.76 44.03 40.32 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0393 .0217 .0173 .0173	2.98 2.98 2.98 2.96 4055-P 2.98 2.96 4055-P 2.939 40393 40393 40393	DEGREE -21.16 -15.95 -9.95 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 5 .9500 .9774 .9897	DEGREE 46.24 44.63 44.63 46.04 49.49 53.37 57.78 59.58 DMESA-B 10CK .0000 .0000 .0000	FT/SEC   548.5   569.5   573.6   588.4   618.2   675.7   709.4   703.0   695.8   EFF-AD TOTAL   .0000	FT/SEC   753.3	FT/SEC 198.0 153.6 92.6 -46.6 -198.5 -342.9 -445.8 -463.0 M-1 .7852 .7675 .7272 .8812 .8426	FT/SEC -544.; -522.; -519.; -591.; -663757.; -830.; -852.; -458.; -458.; -468.; -497.; -494.; -490.; -494.; -490.; -49	FT/SEC 513.6 513.6 552.7 64.7 64.7 77.6 876.5 876.5 M'-1 5.4946 7.5257 5.5257 5.5257	FT/SEC 538.5 553.5 553.1 626.1 701.4 701.4 737.6 857.9 877.3 M'-2 .6511 .6432 .6487 .7151 .71597 .8217
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE 4.40 3.75 1.52 .87	IN 18,580 19,110 19,740 21,600 24,200 26,880 28,900 29,600 30,270 INCM DEGREE 8,37 7,98 6,32 6,36 5,58	FT/SEC 876.3 878.2 814.5 766.8 725.5 698.4 681.6 663.9 DEV DEGREE 15.87 120.98 17.44 14.56 14.56 17.38	FT/SEC 521.2 530.8 571.2 540.8 571.2 567.9 546.9 524.1 501.2 TURN DEGREE 54.91 40.56 36.52 34.45	FT/SEC 511.4 534.4 565.5 585.3 584.4 566.0 543.4 519.4 CAMBER 0EGREE 62.545 57.03 51.68 44.73 44.73	521.0 521.0 526.9 538.3 570.1 566.6 562.6 523.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.3872	711.6 711.6 711.6 711.6 711.6 712.6 713.6 71	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0  OMEGA-B -1402 -1540 -0762 -0536 -0595	54.30 51.84 48.76 44.03 40.72 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0393 .0217 .0173 .0173		DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 S .9530 .9461 .9500 .9774 .9857 .9858	DEGREE  46.24  44.60  46.04  49.49  53.37  57.78  59.58  DMEGA-B  JOCK  .0000 .0000 .0000 .0000	548.5 560.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC   753.3   743.3   821.6   872.8   943.4   981.5   988.5   EFF-P   STATIC   .7909   .8689   .8689   .8689   .8689   .8689   .8689	FT/SEC 198.0 153.8 92.6 -46.6 -198.5 -342.9 -445.8 -463.0 M-1 .7652 .7675 .7275 .6816 .6165	FT/SEC -544.; -522.; -519.; -637757.; -683.; -6852.; -852.; -852.; -852.; -450; -450; -450; -494; -490; -475; -	FT/SEC 513.6 513.6 551.7 6 612.7 6 612.7 7 694.7 7 76.5 8 857.1 8 857.1 6 494.6 7 .595.9 9 .5153 1 .5257 .5486 5 .5486 6 .5258	FT/SEC 538.5 553.5 552.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .6487 .7151 .7597 .8531
5 10 16 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.3070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.40 3.73 2.75 1.52 .87	IN 18,580 19,110 19,740 21,600 26,880 28,900 29,600 30,270 INCM DEGREE 8,37 7,99 7,08 6,32 6,36 5,58	FT/SEC 876.3 876.3 828.2 814.5 766.8 725.5 698.4 681.6 663.9 DEV DEGREE 715.87 120.38 11	FT/SEC 521.2 530.8 571.2 567.9 563.9 546.9 524.9 501.2 TURN OF GREE 48.43 49.56 36.52 34.51 34.15	FT/SEC 511.4 518.5 585.5 584.4 586.0 543.4 519.4 CAMBER CAMBER 62.545 57.53 51.68 44.26 45.96	521.0 521.0 526.9 538.3 570.1 566.6 546.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.3872 1.2867 1.2554	711.6 (85.3 711.6 (85.3 566.2 496.3 439.6 409.1 411.3 413.5 D-FAC 5947 5743 .4822 .4510 .4319 .4553	FT/SEC ( -5.5 31.7 52.4 6 37.7 22.0 22.4 27.3 25.0 0ME GA-B .1402 .1540 .0762 .0536 .0763 .0763	54.30 51.84 48.76 44.03 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0398 .0217 .0173 .0173 .0231	2.94 2.36 2.47 3.81 2.24 2.36 2.98 2.36 LOSS-P PROFILE 0332 .0393 .0217 .0173 .0173	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 S .9530 .9461 .9500 .9774 .9857 .9858	95-31 55-37 55-37 55-37 55-37 59-58 0MESA-B 10CK 0000 0000 0000 0000 0000	548.5 560.5 573.6 588.4 618.2 675.7 709.0 695.8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC   753.3   748.3   748.3   821.6   872.8   981.9   988.5   EFF-P STATIC   .8201   .7909   .7898   .8444   .8979   .8689   .8382	T/SEC 198.0 198.0 92.6 -46.6 -198.5 -427.4 -445.8 -463.0 M-1 .7679 .7275 .6818 .6165 .5996	FT/SEC -544. -519. -519. -519. -637. -637. -815. -830. -852. M-2 .450. .468. .468. .497. .494. .494. .494. .450. .494. .494. .494. .494.	FT/SEC 2 533.6 2 533.6 3 552.7 6 64.7 7 694.7 7 694.7 7 694.7 1 876.5 8 876.5 M'-1 5 .4946 9 .5153 1 .5258 4 .6182	FT/SEC 538.5 553.5 553.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .7151 .7597 .8531 .8536
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE 4.40 3.75 1.52 .87	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.370 INCM DEGREE 8.37 7.08 6.32 6.32 6.32 6.32 6.34 8.11	FT/SEC 876.3 878.2 814.5 766.8 7	FT/SEC 521.2 530.8 571.2 567.9 567.9 546.9 501.2 TURNE 548.91 40.56 34.21 40.56 34.21 35.67	FT/SEC 511.4 538.5 565.5 585.3 584.4 581.7 566.0 543.4 519.4 CAMBER 0EGREE 62.545 57.03 51.68 44.72 45.26 45.96	521.0 521.0 528.9 538.3 570.1 566.6 546.4 523.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.2867 1.2554	711.6 (85.7 711.6 (85.7 7645.3 566.2 499.1 411.3 413.5 D-FAC .5947 .5947 .5948 .4822 .4510 .4319 .4553 .4834	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0 OMEGA-B -1402 -1540 -0762 -0536 -0448 -0595 -0763	54.30 51.84 48.76 44.03 40.72 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0393 .0217 .0173 .0173	2.47 3.41 5.56 3.47 3.81 2.36 2.98 2.86 LOSS-P PROFILE .0338 .0393 .0217 .0161 .0394 .0394	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 77.06 39.37 41.71 P02/ P01 5 .9530 .9461 .9500 .9774 .9857 .9856 .9836	DEGREE  46.24  44.00  46.04  49.49  53.37  57.78  59.58  DMESA-B  10CK  .0000 .0000 .0000 .0000 .0000	FT/SEC   548.5 569.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC   753.3	FT/SEC 198.0 153.6 92.6 -46.6 -198.5 -342.9 -445.8 -463.0 M-1 .7852 .7675 .7275 .6165 .6165 .5996 .5816	FT/SEC -544.; -522.; -519.; -591.; -663757.; -815.; -830.; -852.; 458.; 449.; 497.; 494.; 497.; 494	FT/SEC 513.6 513.6 513.6 513.6 513.6 513.6 612.7 6	FT/SEC 538.5 553.5 553.5 572.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .6487 .7151 .7591 .8531 .8506 .8535
5 10 16 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.3070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.40 3.73 2.75 1.52 .87	IN 18.580 19.110 19.740 21.600 24.200 28.990 29.600 30.270 INCM DEGREE 8.37 7.98 6.32 6.32 6.36 6.36 8.11	FT/SEC 876.3 876.3 828.2 814.5 766.8 725.5 681.6 683.9 DEV DEGREE 15.87 120.98 17.38 14.56 17.38 18.71 19.19	FT/SEC 521.2 530.8 571.2 540.8 571.2 567.9 546.9 524.1 501.2 TURN PEGREE 54.91 40.56 34.21 40.56 34.51 34.15 35.67	FT/SEC 511.4 538.5 585.3 584.4 586.0 543.4 519.4 CAMBER 0EGREE 62.545 57.03 51.68 44.73 44.73 45.26 45.96 46.76	521.0 521.0 526.9 538.3 570.1 566.6 546.4 523.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.2867 1.2854 1.2271	711.6 (85.7 711.6 (85.7 645.3 566.2 499.1 411.3 413.5 D-FAC .5947 .5726 .5433 .4822 .4510 .4319 .4553 .4834	FT/SEC ( -5.5 31.7 52.4 6 37.7 22.0 22.4 27.3 25.0 0ME GA-B .1402 .1540 .0762 .0536 .0763 .0763	54.30 51.84 48.76 44.03 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0398 .0217 .0173 .0173 .0231	2.47 3.41 5.56 3.47 3.81 2.36 2.98 2.86 LOSS-P PROFILE .0338 .0393 .0217 .0161 .0394 .0394	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 77.06 39.37 41.71 P02/ P01 5 .9530 .9461 .9500 .9774 .9857 .9856 .9836	DEGREE  46.24  44.00  46.04  49.49  53.37  57.78  59.58  DMESA-B  10CK  .0000 .0000 .0000 .0000 .0000	FT/SEC   548.5 569.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC   753.3	FT/SEC 198.0 153.6 92.6 -46.6 -198.5 -342.9 -445.8 -463.0 M-1 .7852 .7675 .7275 .6165 .6165 .5996 .5816	FT/SEC -544.; -522.; -519.; -637757.; -615.; -630.; -852.; -450.; -45	FT/SEC 513.6 513.6 513.6 513.6 513.6 513.6 612.7 694.7 776.5 8	FT/SEC 538.5 553.5 552.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .6487 .7151 .7597 .8531 .8506 .8535 SLANT-2
5 10 16 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.3070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.40 3.73 2.75 1.52 .87	IN 18.580 19.110 19.740 21.600 24.200 28.990 29.600 30.270 INCM DEGREE 8.37 7.98 6.32 6.32 6.36 6.36 8.11	FT/SEC 876.3 878.2 814.5 766.8 7766.8 766.8 681.6 663.9 DEV DEGREE 15.87 19.35 20.98 11.504 11.504 11.504 11.504 11.504 11.504 11.504	FT/SEC 521.2 530.8 571.2 540.8 571.2 567.9 546.9 524.1 501.2 TURN PEGREE 54.91 40.56 34.21 40.56 34.51 34.15 35.67	FT/SEC 511.4 538.5 585.3 584.4 586.0 543.4 519.4 CAMBER 0EGREE 62.545 57.03 51.68 44.73 44.73 45.26 45.96 46.76	521.0 521.0 528.9 538.3 570.1 566.6 546.4 523.4 500.5 SOLIDTY 2.1080 2.0311 1.9497 1.7557 1.5498 1.2867 1.2554	711.6 (85.7 711.6 (85.7 7645.3 566.2 499.1 411.3 413.5 D-FAC .5947 .5947 .5948 .4822 .4510 .4319 .4553 .4834	FT/SEC ( -5.5 31.7 52.4 34.6 37.7 22.0 22.4 27.3 25.0 OMEGA-B -1402 -1540 -0762 -0536 -0448 -0595 -0763	54.30 51.84 48.76 44.03 36.70 35.86 37.13 38.53 LOSS-P TOTAL .0332 .0398 .0217 .0173 .0173 .0231	2.47 3.41 5.56 3.47 3.81 2.36 2.98 2.86 LOSS-P PROFILE .0338 .0393 .0217 .0161 .0394 .0394	DEGREE -21.16 -15.95 -9.31 4.52 18.69 30.47 37.06 39.37 41.71 P02/ P01 S .9530 .9461 .9500 .9774 .9857 .9858	DEGREE  46.24  44.00  46.04  49.49  53.37  57.78  59.58  DMESA-B  10CK  .0000 .0000 .0000 .0000 .0000	FT/SEC   548.5 569.5 573.6 588.4 618.2 709.4 703.0 695.8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC   753.3	FT/SEC 198.0 153.6 92.6 -46.6 -198.5 -342.9 -445.8 -463.0 M-1 .7852 .7675 .7275 .6165 .6165 .5996 .5816	FT/SEC -544.; -522.; -519.; -637757.; -615.; -630.; -852.; -450.; -45	FT/SEC 513.6 513.6 513.6 513.6 513.6 513.6 612.7 6	FT/SEC 538.5 553.5 552.1 626.1 701.4 779.1 837.6 857.9 877.3 M'-2 .6511 .6432 .6487 .7151 .7597 .8531 .8506 .8535 SLANT-2

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROT	OR						90%	of Des	ign Sp	eed								
% SPAN			V-1 FT/SEC 467.4			VM-2 FT/SEC 8 526.1	V0-1 T/SEC 1	Vo=2 FT/SEC 0 781-1	8-1 EGREE C			81-2 DEGREE ( -31.05	FT/SEC 1				U-1 FT/\$EC : 380.0	
10 15	14+100	16.790	476.7 486.1	915.5	476.7	532.4	• 0	744.6	.00	54.42	40.59	-25.85	627.7	592.4	-408.4	258.3	408.4	486.3
30	18.280	19.910	508.8	807.4	508.8	534.8	• 0 • 0	695.3	•00 •00	51.63 48.49	46.11	-18.78 -2.92	655.3 734.4	537.4	-529.5	28.1	439.4 529.5	576.7
50 70		23.090	527•8 536•3		527.8 <b>536.3</b>		•0	517·1	•00	45.52 42.75	50.58 54.40		831.8 921.8		-642.7 -749.6		642.7 749.6	668.8 760.6
85 90		28.610	537.2 536.6		537.2 536.6		• 0	428.1	.00	42.93	56.89 57.71	41.03	983.7	610.5	-824.0 -649.2	-400.5	824.0	828.7 851.8
90 95		30.160	535.9				•0 •0	432.2	.00	46.71	58.46	47.34	1004.6		-873.3		873.3	874.1
e coal	INCS	INCM	DEV			SOLIDTY	D-FAC	MEGA-B			P02/			OMEGA-B	M-1	M-2	M*-1	M'-2
5 5	DEGREE (	ع جاء، بواعد بال	5.74			2.4329	.2735	.2133	·0376	ROFILE .0376	1.4136	10TAL 1		•0000	.4268	.8545	.5510	.5573
10 15	89 18	5.76	5.25 6.10			2.2852	.3383 .3821	·1420 ·0781	.0280	·0280	1.4284	•9266 •9551	.9228 .9528	-0000	4351 ,4450	·8275	.5762	.5354 .5206
30	.90	6.57	10.79			1.9041	4934	• 0363	0095		1.4350		.9722	.0000		.7205	.6739	.4796
50	1.95 3.1*	6.93 7.33	12.05		39.12	1.6902	-5485 -5307	•0412 •0467	·0117		1.4254	•9632 •9508	.9613 .9483	.0000	.4837	-6404 -5 <b>8</b> 53	.7634 .0458	.4696 .5087
70 85	3.56	7.24	11.07	15.87		1.5346	.5327 .5307	46571	.0228	. 9228	1.4058	•90Ž1	.8973	-0000	.4925	.5495	.9035	.5335
90 95	3.57 3.44	7. <sub>0</sub> 8 6.82	11.95 13.19			1.4148	.5499 .5654	• 1277 • 1620	•0323 •0395		1.3958		.849 <sub>1</sub>	0000	.4920 .4912	.5319 .5153	•9222 •9398	.5265 .5216
85			_	WC/A-1		P02/	EFF-AD		.00		••••				_	'A=2 SI		_
			M/SEC	LBH/SEC		<b>6</b> 07	*	*						_			GREE	
		6638.		34.81	1.1132	1-4179	92.737	93.1 <u>3</u>							5.0	6.0	86.05	95.02
C/TTA	TOR																	
STA	IOR																	
	DIA-1	IA-3	V-1	V-2	VM-1	VM-2	V0-1	Vn-2	B-1	B-2	B1-1	81-2	V*=1	V1-2	V0'-1	V0 · - 2	U-1	U=2
% SPAN	DIA-1	IA-2 N 18.580	FT/5EC 856.8	ET/SEC	FT/SEC	FT/SEC 495.7	FT/SEC 706.4	F;/cEC	DEGREE	DEGREE	B1-1 DEGREE -21.72	DEGREE	ET/SEC	Fr/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC.
% SPAN	DIA-1 IN 17.72	N 18.580 19.110	856.8 849.3	FT/SEC 496.3 500.7	FT/SEC 484.	FT/SEC 5 495.7 499.7	FT/SEC 706.4 684.1	F7/5EC -14.6 26.8	55.55 53.67	DEGREE   -1.69 3.06	21.72 -16.89	DEGREE 48.11	521.7 521.7 525.9	742.6 726.1	FI/SEC 193-1 152-6	FT/SEC. -552 - 6	FT/SEC 513.3	FT/SEC. 5 530.2 5 553.5
% SPAN 5 10 15 30	DIA-1 IN 17.72 18.350 19.070 21.140	N 18.580 19.110 19.740 21.600	856-6 849-3 834-6 798-	509.2 549.7	FT/SEC 3 484. 503. 532. 559.	FT/SEC 5 495.7 1 499.7 5 506.6 5 548.3	706.4 684.1 642.2 569.4	F:/5EC -14.6 26.8 51.4	0EGREE 55.55 53.67 50.33 45.51	1.69 3.06 5.79 4.17	21.72 -21.73 -16.89 -9.66	DEGREE 46.11 46.50 45.71	521.7 521.7 525.9 540.6	FY/SEC. 742.6 726.1 726.2 802.3	193-1 152-6 89-9	FT/SEC. -552.6 -526.7 -520.3 -585.7	513. 531. 531. 552. 612.	FT/SEC. 3 530.2 5 553.5 571.8 625.6
% SPAN 5 10 15	DIA-1 IN 17.72 18.350 19.070 21.140 23.970	N 18.580 19.110 19.740 21.600 24.200	856-8 849-3 834-6 798-1 753-6	509.2 509.2 550.4	FT/SEC 3 484. 503. 532. 559. 565.	FT/SEC 495.7 499.7 5 506.6 5 548.3	706.4 684.1 642.2 569.4 498.0	FT/SEC -14.6 26.8 51.4 40.0 38.4	55.55 53.67 50.33 45.5; 41.37	DEGREE 3.069 3.06 5.79 4.17	21.72 -21.72 -16.89 -9.60 4.35	DEGREE 46.11 .46.50 45.77 46.88	521.7 521.7 525.9 540.6 561.8	742.6 742.6 726.1 726.2 802.3 860.6	193-1 193-1 152-6 89-9 -42-9	FT/SEC -552.6 -526.7 -520.3 -585.7 -662.6	513. 531. 531. 552. 612. 694.	FT/SEC 3 538.2 5 53.5 5 71.8 6 625.6 3 700.9
% SPAN 5 10 15 30 50 70 85	DIA-1 17.72 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	#T/5EC 856+8 849-3 834-4 798-1 753-4 717-8	500.7 500.7 509.2 549.7 550.4 550.5	FT/SEC 3 484. 7 503. 2 532. 7 559. 5 565. 5 547.	FT/SEC 495.7 499.7 5 506.6 5 548.3 2 549.1 5 556.3	FT/SEC 706.4 684.1 642.2 569.4 498.0 443.0	F7/5EC 26.8 51.4 40.0 38.4 21.5	DEGREE 55.55 53.67 50.33 45.5; 41.37 38.12 37.75	71.69 3.05 5.79 4.17 4.00 2.24 2.41	21.72 -16.89 -9.60 4.35 19.08 30.49	DEGREE 48.11 46.50 45.71 46.88 50.33 53.99 56.64	521.7 521.7 525.9 540.6 561.8 599.3 655.9	FT/SEC, 742.6 726.1 726.2 802.3 860.6 935.9 975.3	FI/SEC 193-1 152-6 89-9 -42-9 -196-3 -332-9 -412-2	FT/SEC. -552.8 -526.7 -520.3 -585.7 -662.6 -757.1 -814.6	513. 531. 531. 552. 612. 694. 776.	FT/SEC 3 538.2 5 553.5 5 571.8 6 625.6 7 700.9 7 778.6 9 837.1
% SPAN 5 10 15 30 50 70	DIA-1 17.72 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880	FT/SEC 856-6 849-3 834-6 798-1 753-6 717-6 692-3 678-5	5496.3 500.7 509.2 549.7 550.4 550.5 536.7	FT/SEC 484. 503. 532. 559. 565. 547. 527.	FT/SEC 495.7 499.7 5 506.6 5 548.3 2 549.1 5 556.3	FT/SEC 706.4 684.1 642.2 569.4 498.0 443.0	FT/5EC 26.8 51.4 40.0 38.4 21.5 22.5	55.55 53.67 50.33 45.5; 41.37	DEGREE 3.069 3.06 5.79 4.17	21.72 -16.89 -9.6 4.35 19.08	DEGREE 44.11 45.77 45.77 46.88 50.33 553.99 56.64	521.7 521.7 525.9 540.6 561.8 599.3 685.9	FT/SEC, 742.6 726.1 726.2 802.3 860.6 935.9 975.3	F1/SEC 193-1 152-6 89-9 -42-9 -196-3	FT/SEC. -552.8 -526.7 -520.3 -585.7 -662.6 -757.1 -814.6	FT/SEC 513.3 531.5 552.4 612.3 694.3 776.6 835.6	FT/SEC. 3 538.2 3 553.5 4 571.8 3 625.6 5 700.9 778.6 9 837.1 6 857.3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.72 18.350 19.070 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	######################################	FT/SEC 496.3 509.2 509.2 559.4 550.5 536.7 617.4 498.3 TURN	FT/SEC 484. 7 503. 2 532. 7 559. 565. 547. 527. CAMBER	FT/SEC 495.7 499.7 5 506.6 5 548.3 2 549.1 5 556.3	706.4 706.4 684.1 642.2 569.4 498.0 443.0 423.7 427.3	F: 45 26.8 51.4 40.0 38.4 21.5 22.5 27.0 21.4	DEGREE 55.55 53.67 50.33 45.51 41.37 38.12 37.75 39.03 40.38	71.69 3.06 5.79 4.17 4.00 2.24 2.41 2.98 LOSS-P	21.72 -21.72 -16.89 -9.60 4.35 19.08 30.49 36.99 39.17 41.25	DEGREE 46.11 .46.50 45.71 .46.88 .50.33 .53.99 .56.64 .58.10 .59.80 .0ME6A-8	FT/SEC 521.7 525.9 540.6 561.8 599.3 685.9 685.4 679.8	FT/SEC.742.6 742.6 726.1 726.2 802.3 802.3 935.9 975.3 978.1	FI/SEC 193-1 152-6 89-9 -42-9 -196-3 -332-9 -412-2	FT/SEC. -552.8 -526.7 -520.3 -585.7 -662.6 -757.1 -814.6	FT/SEC 513.3 531.5 552.4 612.3 694.3 776.6 835.6	FT/SEC. 3 538.2 3 553.5 4 571.8 3 625.6 5 700.9 778.6 9 837.1 6 857.3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.72 18.350 19.070 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE	######################################	FT/SEG 496.3 500.7 509.2 559.7 550.5 536.7 517.4 498.3 TURN DEGREE	FT/SEG 5 484. 503. 555. 565. 567. 527. CAMBER DEGREE	ET/SEC 75 495.7 499.7 5 506.6 5 548.3 5 556.3 5 556.7 8	FT/SEC 706.4 684.1 684.2 559.4 498.0 423.7 427.3 431.2	F: GEC 26.8 51.4 40.0 21.5 22.5 27.0 21.4 OMEGA-8	DESCE 55.55 53.67 50.33 45.53 41.37 38.12 37.75 39.04 40.38 LOSS-P	71.69 3.06 5.79 4.17 4.00 2.24 2.41 2.98	21.72 -21.72 -16.89 -9.66 19.08 36.99 36.99 37.17 41.25	DEGREE 46.11 46.50 45.71 46.50 50.33 50.33 53.99 56.64 58.10 59.80 0ME6A-8	FT/SEC 521.7 525.9 540.6 591.3 655.9 685.4 674.4 FFF-AD	FT/SEC. 742.6 726.1 726.2 802.3 802.3 935.9 975.3 989.7 EFF-P STATIC	FI/SEC 193-1 152-6 89-9 -42-9 -196-3 -332-9 -412-2 -429-2	F7/SEC. -532-5 -526-7 -520-3 -585-7 -635-7 -814-6 -835-3 M-2	FT/SEC 513.1 531.1 552.4 612.1 776.6 835.6 856.5 875.5	FT/SEC 3 538-2 5 531-5 6 571-5 6 625-6 3 700-9 778-9 6 837-1 6 837-3 6 837-3 6 837-3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.218.350 19.070 21.140 23.770 26.860 29.570 INCS DEGREE 5.85	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 9.80	FT/SEC 856-8 849-3 7783-1 7753-1 7753-1 692-5 665-5 DEV DEGREE 18-99	FT/SEG 496.3 500.7 550.4 550.5 536.7 536.7 100.0	FT/SEG 484.7 503.6 7 559.6 7 564.7 547.6 547.6 CAMBER DEGREE 59.5	ET/SEC 7 495.7 5 496.6 5 548.3 5 556.3 5 556.3 6 576.8 7 50.10 TY 8 2.1083	FT/SEC 706.4 642.2 569.4 498.0 443.7 427.3 D-FAC .5967	F**GEC 26.8 51.4 50.9 38.4 21.5 27.0 OMEGA-8 .1510 .1728	55.55 53.67 50.33 45.33 41.37 38.12 37.75 39.04 40.38 LOSS-P TOTAL 0358	71.69 3.06 5.79 4.00 2.24 2.41 2.98 PROFILE .0358	POLICE PO	DEGREE 48-11 46-50 45-71 46-88 50-33 56-64 758-80 0ME6A-8	FT/SEC 521.7 525.9 540.6 551.9 555.9 685.9 674.8 674.8 FFF-AD 707AL .0000	FT/SEC, 742.6 726.2 802.3 802.3 935.9 975.3 989.7 EFF-P STATIC .7819	FI SEC 193-1 152-6 152-9 -42-9 -196-3 -332-19 -412-2 -429-2 -429-2 -44-7 M-1 .7650	FT25EC.6 -552.6 -526.7 -585.7 -662.6 -757.1 -819.6 -855.3 M-2 .4283	FT/SEC 513.3 513.3 531.9 614.3 694.3 776.6 835.5 876.5 M*-1	FT/SEC 3 538.2 5 57.5 6 25.6 7 700.9 8 37.1 8 57.3 8 57.3 8 57.3 8 6409 6270
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.72 18.350 19.070 23.970 26.790 29.570 29.570 INCS DEGREE 5.82 5.55 4.34	18.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 INCM DEGREE 9.867 9.867 7.82	FT/SEC 856. 856. 849. 798. 753. 692. 678. 665.5 DEV 0EGREE 14.7 18.9 21.2	FT/SEC 496.3 509.2 5509.4 550.4 550.4 550.4 550.4 536.7 517.4 498.3 TURN DEGREE 57.24 44.53	FT/SEG 5 484. 5 532. 5 555. 5 565. 5 547. 5 27. CAMBER DEGREE 62.5 57.0 57.0	FT/SEC 7 495.7 1 495.7 5 548.3 2 549.1 5 556.3 5 549.1 5 556.3 5 556.3 2 1083 2 1083 2 1083 2 1083	FT/SEC 706.4 684.2 569.4 498.0 4423.7 427.3 431.2 D-FAC .59675	F*/5EC -14.6 26.8 40.0 38.4 40.0 38.4 21.5 27.0 21.4 0MEGA-8 .1510 .1728	55.55 55.55 55.55 55.53 45.51 41.37 38.77 39.04 40.38 LOSS-P TOTAL 0358 .0426	71.69 71.69 7.05 7.79 4.17 4.00 2.41 2.98 2.46 LOSS-P PROFILE .0358 .0425	DEBREE -21.72 -16.89 -9.61 19.89 30.89 30.89 39.17 41.25 PO2/ PO1 S .9483	DEGREE 2 48.11 45.77 46.88 50.33 55.64 7 58.10 59.80 0ME6A-8	FT/SEC 521.7 525.9 540.6 561.8 599.3 685.4 674.4 FFF-AD TOTAL .0000 .0000	FT/SEC, 742.6 742.6 726.2 802.3 860.6 975.3 978.1 989.7 EFF-P STATIC .7864	FI SEC 193.1 152.6 189.9 -42.9 -196.3 -312.2 -429.2 -444.7 M-1 .7650	FT25E.8 -552.8 -520.3 -585.7 -662.6 -7814.6 -835.3 M-2 .4263 .4405	FT/SEC 513.3 513.3 612.3 612.3 694.3 735.9 856.5 875.9 M*-1	FT/SEC 5 538-2 5 531-8 6 25-6 7 700-9 8 37-1 8 857-3 8 76-8 M'-2 6 6270 6 6270
% SPAN 5 10 15 30 50 95 95 10 15 30 50 50	DIA-1 17.350 19.350 19.350 19.350 19.350 21.140 23.790 29.570 1NCS 29.574 1NCS 29.574 3.93 3.93 3.93	N580 19.110 19.740 21.600 24.200 26.600 28.900 29.600 INCE 9.87 9.87 7.82	FT/SEC 856. 849. 834. 798. 753. 6692. 665. 0EQREE 14.7 18.99 21.22	FT/SEC	FT/SEC. 484. 532. 532. 555. 547. 527. CAMBRE 550. 59. 59. 59. 59. 54. 54.	ET/SEC 7 495.7 5 496.6 5 549.4 5 556.3 5 576.3 5 576.3	FT/SEC 4 766.4 642.2 642.2 569.4 423.7 427.3 427.3 427.3 431.7 615675.4 5675.4 444949	F: 5EC -14.6 25.1.4 40.0 38.4 22.5 27.0 21.4 0MEGA-8 .1510 .1671 .1684 .0604	55.55 55.55 55.55 55.33 45.51 41.37 38.47 39.04 40.38 LOSTAL 0425 0425 0425 0194	DEEREE -1.69 3.69 5.79 4.17 4.00 2.41 2.98 2.46 PROFILE .0358 .0425 .0425	DE REE E 21 - 72 - 72 - 72 - 72 - 72 - 72 - 73 - 73	DEGREE 2 48.15 45.77 46.88 50.33 56.64 58.10 58.10 0ME&A=8 10000 10000 10000 10000 10000 10000 10000	FT/SEC 521.7 525.9 540.6 561.8 599.3 655.4 674.4 10000 10000 10000 10000 10000	FT/SEC, 742.6 726.2 726.2 802.3 860.6 935.9 975.3 989.7 EFF-P STATIC .7819 .7819 .8579	Fire Fire Fire Fire Fire Fire Fire Fire	FTZSEC. -552-8 -552-8 -520-3 -585-7 -662-6 -757-1 -818-6 -835-3 M-2 -4283 -4405 -4783 -4783	FT/SEC 513.: 5513.: 552 612.: 612.: 776.: 835.5 856.: 875.5 4673 44673 4683 5300	FT/SEC 3 538.2 5 571.8 6 25.6 7 700.9 9 37.1 9 837.1 9 837.1 6 857.3 9 6270 6 6282 6 6286 9 6270 6 6286 9 6286 9 6270 6 6286 9 7479
\$\frac{\\$ \span}{5} \] 10 15 30 50 70 85 90 95 \$\frac{\\$ \span}{5} \] 10 15 30 50 50 70 85	DIA-1 17.72 18.350 19.070 23.970 26.790 29.570 29.570 INCS DEGREE 5.82 5.55 4.34	18.580 19.1740 21.600 24.200 26.880 29.600 29.600 30.270 INCM EGREE 9.82 7.42 7.42 7.42	FT/SEC 856. 856. 834. 798. 753. 678. 665. 0EV 0EGREE 14.77 18.2 18.1 15.4	FT/SEC 496.37 509.27 5509.27 5509.27 5509.27 5509.27 57.88 57.89 5	FT/SEC. 484. 7 532. 7 5539. 7 565. 7 565. 7 567. 7	FT/SEC. 7. 495. 7. 495. 7. 506. 3. 556	FT/SEC 4 706 4 706 4 642 4 569 4 44 2 569 4 423 7 7 427 7 427 7 407 7 40 7 40	F***GEC 26.88 51.4 78.4 21.5 27.0 21.4 0MEGA-8 .1510 .1728 .1684 .0504 .0504	55.55 55.55 55.55 55.55 45.53 45.53 41.37 37.75 39.94 40.38 LOSSAL 0425 0425 0425 0425 0425	-1.69 -1.69 -1.79 4.17 4.00 2.41 2.98 2.46 LOSS-P PROFILE .0358 .0426 .0194 .0194 .0251	DE ÉRE E -21 - 72 -9 - 96 4 - 35 19 - 96 30 - 95 36 - 95 39 - 17 41 - 25 -95 12 -94 53 -94 53 -94 53 -98 44 -98 74 -98 94 -98 96 -98	DEGREE 2 48-11 45-71 46-88 50-33 55-64 7 58-10 59-80 0ME6A-8 140CK 0-9000 0-9000 0-9000 0-9000	FT/SEC 521-7 525-9 540-6 561-8 561-8 679-3 685-4 674-4 0000 0000 0000 0000 0000	FT/SEC, 742.6 742.6 726.2 802.3 809.5 935.9 975.3 989.7 EFF-P STATIC .7819 .7764 .8574 .8879 .8906	Fire Fire Fire Fire Fire Fire Fire Fire	FTZSEC. -552.8 -520.3 -585.7 -662.6 -757-6830.8 -830.8 -855.3 M-2 .4283 .4405 .4775 .4783 .4783	FT/SEC 513: 552: 612: 612: 694: 776: 835: 856: 875: 473: 473: 4843: 5005:	FT/SEC 3 538.2 5 57.1 6 25.6 6 25.6 7 7 7 9 9 8 3 7 1 1 8 5 7 1 3 8 5 7 1 3 8 6 2 7 9 8 6 2 7 9 8 6 2 8 9 8 6 2 9 8 7 9 8 7 9 8 7 9 8 9 9 8 9 8
% SPAN 5 10 15 30 50 95 95 \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$ \$\$	DIA-1 17.72 18.350 19.350 19.140 23.770 26.780 29.570 30.24 1NCS DEGREE 5.85 5.34 3.03 1.99 .93	N. 580 19.140 19.740 21.600 24.200 24.880 29.600 30.270 INCM EGP.78 9.78 9.78 9.78 7.428	FT/SEC 856. 856. 834. 798. 753. 678. 665. 0EV 0EGREE 14.77 18.2 18.1 15.4	FT/SEC 496.37 509.27 5509.27 5509.27 5509.27 5509.27 57.88 57.89 5	FT/SEC. 484. 7 532. 7 5539. 7 565. 7 565. 7 567. 7	FT/SEC 77 495.7 5 496.6 5 548.3 5 549.3 5 536.3 6 1.255.6 6 1.255.6 6 1.255.6 6 1.255.6	FT/SEC 442.75664.2.466664.2.466664.2.466664.2.466664.2.4666664.2.466666666	F: -66 26.68 51.4 40.0 38.45 22.5 27.0 21.4 0MEGA-8 .1571 .0884 .0527 .0687	55.55 55.55 55.53 55.53 41.37 56.75 41.37 38.75 39.04 40.38 LOSS—P TOTAL 00.358 .04.26 .04.26 .01.94 .01.94 .02.51	DEEREE -1.69 3.05 4.17 4.00 2.24 2.98 2.46 2.98 2.46 0.35 0.04 2.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	DE RECE   721 - 72 - 72 - 72 - 72 - 72 - 72 - 72	DEGREE 2 48-11 45-71 46-88 55-98 55-64 7 58-10 59-80 0 000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000	FT/SEC 521.7 525.9 540.6 561.8 599.3 685.4 674.4 FFF-AD TOTAL 100000 100000 100000 100000 100000 100000 100000 100000 1000000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 1000000 1000000 100000 100000 1	FT/SEC, 742.6 742.6 726.2 802.3 802.3 935.9 975.3 978.7 EFF-P STATIC .8879 .8574 .8574 .8575	Fire Fire Fire Fire Fire Fire Fire Fire	FTZSEC. -552.8 -520.3 -585.7 -662.6 -757-6830.8 -830.8 -855.3 M-2 .4283 .4405 .4775 .4783 .4783	FTZSEC 513. 552. 612. 694. 776. 835. 856. 875. 4673. 4673. 4673. 4673. 5008. 576.	FT/SEC 3 538-2 5 571-8 6 25-6 7 700-9 8 37-1 8 57-3 8 76-8 M'-2 6 409 6 609 6 609 6 609 6 609 6 609 6 609 6 709 6 709
\$\secondspace \text{SPAN} 5 10 15 30 50 70 85 90 95 \$\text{SPAN} 5 10 15 30 50 70 85 90	DIA-1 17.72 18.350 19.350 19.350 21.140 23.779 28.860 29.570 30.240 INCS DEGREE 5.85 4.34 3.03 1.59	N. 580 19.740 21.600 21.600 24.880 29.600 29.600 20.270 INCM 28.760 29.76 29.76 20.670	FT/SEC 856. 849. 798. 753. 692. 665.5 DEV 0EGREE 14.7 18.1 17.4 18.7 18.7	FT/SEC 496.3 496.3 509.4 550.4	FT +884. 484. 539. 539. 547. 547. 547. 547. 547. 547. 547. 64	FT/SEC. 7 495.7 506.63 5149.1 556.3 516.3	FT/SEC 4 768-4 6842-2 569-4 498-0 4423-7 431-2 D-F 619675 4949-4 447-23 447-23 447-23 447-23	F: -GEC 6 26.8 40.0 51.4 4	55.55 55.55 55.55 55.55 45.53 45.53 41.37 37.75 39.94 40.38 LOSSAL 0425 0425 0425 0425 0425	DEEREE -1.69 3.05 4.17 4.00 2.24 2.98 2.46 2.98 2.46 0.35 0.04 2.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	DE RECE   721 - 72 - 72 - 72 - 72 - 72 - 72 - 72	DEGREE 2 48-11 45-71 46-88 3 50-33 9 56-64 7 58-10 0 000 0 0000 0 000 0	FT/SEC 521.7 525.9 540.6 561.8 599.3 685.4 674.4 FFF-AD TOTAL 100000 100000 100000 100000 100000 100000 100000 100000 1000000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 1000000 1000000 100000 100000 1	FT/SEC, 742.6 742.2 802.3 802.3 805.6 935.3 978.1 989.7 EFF P STATIC .7819 .7764 .8574 .8574 .8574 .8574 .8555 .8216 .7904	FT.SEC. 193.1 152.6 89.9 -12.9 -196.3 -332.9 -412.2 -444.7 M-1 .7650 .7452 .7118 .60349 .60349 .5958	FT/SEC. -52-6-7-52-6-7-52-7-52-7-52-7-7-52-6-7-52-	FT/SEC 513. 552. 612. 612. 694. 776. 835. 856. 875. 473. .473. .4843 .5005 .5706 .5706	FT/SEC 3 538-2 5 571-8 6 25-6 7 700-9 8 37-1 8 37-1 8 37-3 8 76-8 M'-2 6 4070 6 28-2 6 6969 7 6 28-2 6 8 45-2 8 45-2 8 45-2 8 45-2 8 57-3 8 76-8 8
\$\secondspace \text{SPAN} 5 10 15 30 50 70 85 90 95 \$\text{SPAN} 5 10 15 30 50 70 85 90	DIA-1 17.72 18.350 19.350 19.140 23.770 26.780 29.570 30.24 1NCS DEGREE 5.85 5.34 3.03 1.99 .93	18.580 19.740 21.600 24.200 28.900 29.600 29.600 30.270 INCM EGREE 9.67 7.426	FT/SEC 856. 856. 834. 798. 753. 692. 665.5 DEV 0EGREE 14.7 18.1 17.4 18.7 18.7	FT/SEC 496.37 509.27 5509.27 5509.27 5509.27 5509.27 57.88 57.89 5	FT /8E4 · · · · · · · · · · · · · · · · · · ·	FT/SEC 77 495.7 5 496.6 5 548.3 5 549.3 5 536.3 6 1.255.6 6 1.255.6 6 1.255.6 6 1.255.6	FT/SEC 442.75664.2.466664.2.466664.2.466664.2.466664.2.4666664.2.466666666	F: -GEC 6 26.8 40.0 51.4 4	55.55 55.55 55.53 55.53 41.37 56.75 41.37 38.75 39.04 40.38 LOSS—P TOTAL 00.358 .04.26 .04.26 .01.94 .01.94 .02.51	DEEREE -1.69 3.05 4.17 4.00 2.24 2.98 2.46 2.98 2.46 0.35 0.04 2.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03	DE RECE   721 - 72 - 72 - 72 - 72 - 72 - 72 - 72	DEGREE 2 48-11 45-71 46-88 55-98 55-64 7 58-10 59-80 0 000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000 0 0000	FT/SEC 521.7 525.9 540.6 561.8 599.3 685.4 674.4 FFF-AD TOTAL 100000 100000 100000 100000 100000 100000 100000 100000 1000000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 100000 1000000 1000000 100000 100000 1	FT/SEC, 742.6 742.2 802.3 802.3 805.6 935.3 978.1 989.7 EFF P STATIC .7819 .7764 .8574 .8574 .8574 .8574 .8555 .8216 .7904	Fire Fire Fire Fire Fire Fire Fire Fire	FT/SEC. -552.8 -520.3 -585.7 -662.6 -757-6 -830.8 -855.3 M-2 .4283 .4775 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783 .4783	FTZSEC 513. 552. 612. 694. 776. 835. 875. 875. 875. 875. 875. 875. 875. 87	FT/SEC 3 538-2 5 571-8 6 25-6 7 700-9 8 37-1 8 57-3 8 76-8 M'-2 6 409 6 609 6 609 6 609 6 609 6 609 6 609 6 709 6 709

90% of Design Speed

100 1									sign S									
% SPAN	IN	IN DIAWS	FTASEC	ET (SEC	ET/SEC	FT45FC	VU-1	V3=2	DEGREE	B=2	D*=1	B1-2	V'-I	V*=2	V0*-1	V0 -	2 U-1	U=Z
7-3-71.		16.030		935.8	F1/300	506.4				57.24			595.3					
10		16.790											620.6					
15		17.585										-19.3		563.7				
30		19.910		802.4	497.7	520.4		_					727.9					
50			310.6							46.42			7 826.2	520.1				
70		26.260													-751.			
85		28.61		613.8				14					979.8		-826.			
90 95		29.410 30:1 <del>0</del> 0		598.1									1000,9					
95	000130	001200	, 0240,	3,011	. JE 71.	3,7,6	• • • •	77780	• • • •	45.04	, 396Q	4/12	1021.1	300.7	1201	-432	•U 0/50	9 876.8
		- INCH	<del>0E</del> V	TUNN	CAMBER	SOLIDTY	- U-FAC	OMEGA-B	LOSS-P	L033-1	P02/	f.FF-P	EFF-AD	OMEGA-	- Mm1-	402	M+m	Menz
% SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE				TOTAL	PROFILE	P01	TOTAL	TOTAL S	HOCK	-	_	•	-
5	=1-17	_					•2 <del>9</del> 12			.039	1.4161	. 893	6 •8 <b>983</b>	0000	.417	. 84	78 .543	9 ,5434
10	18						.3535				1.4285							1 .5222
15	153					2.1566					1.4329							
30 50	1.61				53.25		.5104		•0114		1.4391							
70	3.78					1.5346		.0465			1.4281		9523					
85	4:18					1.4422					1.4197							
90	4.18			14.21					0332									
95	4.05	7.42	13:04	11.67	17.45	1.3891							6 6131					
			- WCOR-1				- EFF-AC								STAP1	TA-2		SLANT-2
		REM L	.BM/SEC	SOFT	. 101	POI	*	*									DEGREE	DEGREE
		6658.			1.1154	1.4266	92,548	93.04							5.0	6.0	86 08	95,02
					-,	-,	, ,,,,,,,,								3.0	0,0	00100	75,02
STA	TOR																	
		Draws-		V83	- Variet	1702-77	VO-1	- un=2		B=7	- DY_1	D1=9	VICT	VI-2	WALL	V01-2	71-1	U=2
% SPAN							TVSEC F											
5			849.3															8 539.8
10	1g.350	19.110	839.5	479.2	484.5	478.5	685.5	20.3	54.75	2.43	-17.47	48,18	500.1		152.4	-534,	9 533.1	555.2
15			623.8			484.6			51.38	5.56	-9.91			715.4		-526.		
30			790.0			530.4			46.69	4.40	4.10			791.0				
50	23.970								42.33	3.81	19.23		585.9					
70 25			715.2 692.0			543.3 531.9			39.14 39.07	2.24	30.47 36.84	54.42 56.95		934.0			6 778.: 4 838.:	
85 90			679.7			513.5			40.36	2.47								0 859.9
95	30.240				499.3		443.8	14.3	41.63	1.65	41.04						3 878	
	•		_			_			-					_				
	- INCS					OLIDTY	D-FAC 0	HEGA-B							<del>                                    </del>	Hes	N.ml	M+w2
	DEGREE									ROFILE	_ =		TCTAL S		3000			
5 10			13.76					.1560	• 0370	0370	9504	•0000				.412		
15	5.43		18.35		59.53	1.9507		.1803 .1765	• 0443		•9438 •9467	.0000		.7782	.7478 .7348			
30	4.24		18,42				•5907 •5164	.1024	.0290	.0450	.9712	• 0000		.7699 .8402	7038	461		
50	2.92		14.50				4780	-0657	0211	.0211	9833			8810	6626			
70	1.60		15.03		44.20		4560	.0588	.0212	.0212	9862			.8822	.6319	.471		
85	2.23	8.73	17.41	36.67	45 - 25	1.2870	.4629	.0745	.0289	.0287	.9835	•0000		.8471	.6086	.460	6 .589	
90	3.42		18.19		45.96			• 0961	.0382	.0382	•9795	.0000	•0000	.8084	.5958	.443		
95	4.49	11.24	17.97	39 <b>,</b> 99	46.75	1.2272	•5191	•1137	.0463	.0463	•9766	• 0000	•0000	.7739	.5832	.426	5 •577	1 .8573
		NCOD_	WCOD.	HC 44	TOOL	D04-	CFF=AD			••••						T	C1 1WT: -	SLANT-2
			M/SEC L			PQ1	EFF=AU %	<u> </u>						•	2 W-1 2		DEGREE	
		to the total		SAP Y		. ••	70	m									PCOMEE	DEANEC
		66:58.			1,1154	1,3921	85,963	86,63							11.0	12.0	90.00	90.00
								-										

Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR					95%	of Des	ign Sp	eed								
DIA-1	DIA-2 V-1	V-2	VM-1	VM-2	_vo=1	_vo-2	8-1 	B-2	B'-1		V1				U-1	U=2
5 13.120	IN FT/SEC 16+030 584,	FT/SEC 1 1121.6			1/5EC		.00	50.74								
10 14.100	16.790 596	6 1103.3	596.6	707.5	• 6	846.5 793.0	.00	50.10 48.04	35.87	-25.17 -19.66	736.3 766.1	782.2	-431.4 -464.1	332.8	431.4	513.7
		5 1066•3 9 957•7		712•5 705•5	•0	647.3	,00 ,00	42.50	41.08		850.8		-559.3	255•1 38•1	559.3	
	23.090 664				•0		.00	37.98	45.58	15.27	950.2 1036.6		- <sub>0</sub> 78.9		678.9 791.8	
	26+260   6 <sub>6</sub> 8,   28+610   663,				•0		,00 ,00	34.00 33.44	52 • 6 ğ	43.43	1094.5	75ú.6	-870.4	<b>-</b> 5 <sub>1</sub> 5.7	870.4	875.3
	29•410 660 30•180 658		660.8 658.5		• 0	351·4 345·7	,00 00.	34.52 35.36	53•62 54•48		1114.2		-897.1 -022.5			
-				· -	•	_	•		_							
INCS <u>% SPAN</u> DEGREE	DEGREE DEGREE		CAMBER !	SOLIDTY	D_FAC		TOTAL	PROFILE	P02/	TOTAL	EFF-AD O TOTAL SH	MEGA-B	M=1	M_2	M*-1	M'-2
5 -6.49	•42 g.{	2 62.53	70.99		.1423	.2395	• 0434	.0434	1.4753	.8666	8594	.0000	5392	1. 388	.6554	
10 ~5,62 15 ~5.01				2.2847	.2110		•0294 •0210		1.5184 1.5238		•9080 •9346	•0000	5652	1 · 168	.684 <sub>0</sub>	
30 -4,12	1.52 10.6	7 44.13	53.29	1.9026	.3749	.0460	.0121	.0121	1.4925	.9615	.9593	•0000	5957	. 8668	.7944	.6415
50 -2.98 70 -1.36				1.6884	.4331 .4295	0546 0969	•0156 •0266		1.4475	.9434 .8729	.9403	•0000	,6185 ,6210	•7606 •6517	.8909 .9707	
<b>85</b> 60	3.03 13.	3 9.25	19.75	1.4420	.4284	. 155n	•0390	.0370	1.2953	.7680	.7593	·0078	6153	•5753	1.0225	.6615
90 -,5; 95 -,5;			18.33 17.48	1.4148	.4382 .4430		•0457 •0495		1.2706	.7078 .6642	.6978 .6533	•0089 •0105	.6130		1.0388	
			_	•	-			,	5					•		
	NCOP-1 WCOR- RPM LBM/SEC			PG <b>2/</b> PG <b>1</b>	EFF-AD	# Ftt=h						•	>' <b>A</b> =1 >'		GREE	SLANT-2 DEGREE
	7011, 180.0	SUFT 6 40.80	1.1159	1.4051	88.085	90,55							5.0	6.0	86.05	95+1)2
STATOR																
DIA-1	D:A-2 V-1	v <del>-</del> 2	V <b>M−</b> 1	<b>V</b> M-2	vo-1	<b>v</b> 0-2	8-1	B-2	B•-1	B*-2	V·-1	v*->	Vo*-1	V02	U <b>-</b> 1	<b>∪-</b> 2
SPAN IN	IN FT/SE	FT/SEC	FT/SEC	FT/SEC	FT/SEC	V0-2 FT/SEC	DEGREE	DEGREE D	EGREE	DEGREE	FT/SEC F	T/SEC	Vo'-1 FT/SEC	FT/SEC -	FT/SEC	FT/SEC
% SPAN IN 5 17.72 10 18.35	IN FT/5E 0 18.580 1048 0 19.110 1058	FT/SEC 8 705.4 1 727.6	FT/SEC 696.6 720.6	FT/SEC   705+0 726+5	FT/SEC 784.0 774.7	FT/SEC 17.2 40.3	DEGRÉE 48.38 47.47	DEGREE 0 1.39 3.17	EGREE -19-14 -16-49	DEGREE 38.02 36.85	FT/sEc f 737.4 751.7	7/SEC 895. <sub>0</sub> 907.8	FT/SEC   241.8 213.3	FT/SEC - 551.2- 544.4	FT/5FC 542.2 561.4	FT/SEC 568,5
%SPAN IN 5 17.72 10 18.35 15 19.07	IN FT/SE 0 18.580 1048 0 19.110 1058 0 19.740 1044	FT/SEC 8 705.4 1 727.6 4 744.2	FT/SEC 696.6 720.6	FT/SEC 705•0 726•5 743•2	784.0 784.0 774.7 733.1	FT/SEC   17.2 40.3 38.1	DEGRÉE 48.38 47.47 44.59	1.39 3.17 2.94	EGREE -19•14 -16•49 -11•40	DEGREE 38.02 36.85 37.28	FT/sEc 1 737.4 751.7 759.2	7/SEC 895.0 907.8 934.2	FT/SEC 4 241.8 213.3 149.7	FT/SEC -551.2 -544.4 -565.9	FT/5FC 542.2 561.4 583.5	FT/SEC 568,5 584.7 604.0
DIA-1  **SPAN JN  5 17.72  10 18.35  15 19.07  30 21.14  60 23.97	IN FT/5E 0 18.580 1048 0 19.110 1058	FT/SEC 8 705-4 1 727-6 4 744-2 1 736-6	FT/SEC 696.6 720.6 743.4 769.3	705+0 705+0 726+5 743+2 735+6	784.0 784.0 774.7 733.1 609.9	FT/SEC 17.2 40.3 38.1 37.0 45.0	DEGRÉE 48,38 47,47 44,59 38,38 33,71	DEGREE 0 1.39 3.17	EGREE -19-14 -16-49 -11-40 2-72 16-84	DEGREE 38.02 36.85 37.28 40.29	FT/sEc f 737.4 751.7 759.2 771.8	7/SEC 895.0 907.8 934.2 964.7	FT/SEC 4 241.8 213.3 149.7	FT/SEC -551.2 -544.4 -565.9 -623.9	FT/5EC 542.2 561.4 583.5 646.8	FT/SEC 568,5 584.7 604.0 660.9 740.4
DIA-1 % SPAN JN 5 17.72 10 18.35 15 19.07 30 21.141 50 23.97 70 26.79	IN FT/SE 18.580 1048 19.110 1058 19.140 1044 21.600 982 24.200 988 0 26.880 808	FT/SEC 18 705-4 1 727-6 14 744-2 1 736-6 16 717-1 1 662-2	FT/SEC 696.6 720.6 743.4 769.3 755.5 700.2	705-0 705-0 726-5 743-2 735-6 715-7 662-1	784.0 784.0 774.7 733.1 609.9 504.5 403.3	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0	0ECRÉE 48.38 47.07 44.59 38.38 33.71 29.92	1.39 3.17 2.94 2.88 3.60	EGREE -19.14 -16.49 -11.40 2.72 16.84 30.71	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87	FT/SEC 1 737.4 751.7 759.2 771.8 790.8 816.0	7/SEC   895.0 907.8 934.2 964.7 998.1 1050.1	7/SEC   241.8   213.3   149.7   -36.9   -228.8   -416.4	FT/SEC -551.2 -544.4 -565.9 -623.9 -605.4 -814.4	FT/SEC 542+2 561+4 583+5 646+8 733+4 819+7	FT/SEC 568,5 584,7 604.0 660.9 740.4 822.4
DIA-1 % SPAN JN 5 17.72 10 18.35 15 19.07 30 21.14 60 23.97 70 26.79 85 28.86	IN FT/SE 0 18.580 1048 0 19.110 1058 0 19.740 1044 21.600 982 0 24.200 982 0 26.880 808 0 28.900 734	FT/SEC 18 705-4 11 727-6 14 744-2 11 736-6 16 717-1 11 662-2 13 599-2	FT/SEC 696.6 720.6 743.4 769.3 755.5 700.2 641.9	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2	FT/SEC 784.0 774.7 733.1 609.9 504.5 403.3 356.7	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0	0E CRÉE 48.38 47.47 44.59 38.38 33.71 29.92	DEGREE 0 1.39 3.17 2.94 2.88 3.60	EGREE -19-14 -16-49 -11-40 2-72 16-84	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88	FT/SEC F 737.4 751.7 759.2 771.8 790.8 816.0 830.4 827.6	7/SEC 895.0 907.8 934.2 964.7 998.1 1050.1 1068.2	7/SEC 1 241.8 213.3 149.7 -36.9 -228.8 -416.4 -526.3	FT/SEC -551.2 -544.4 -565.9 -623.9 -605.4 -814.4 -884.1 -900.3	FT/SEC 542.2 561.4 583.5 646.8 733.4 819.7 883.6 904.7	FT/SEC 568.5 584.7 604.0 660.9 740.4 822.4 884.2 905.6
DIA-1 % SPAN JN 5 17.72: 10 18.35: 15 19.07: 30 21.14: 50 23.97: 70 26.79: 85 28.86: 90 29.57:	IN FT/SE 18.580 1048 3.19.110 1058 3.19.740 1044 21.600 982 3.24.200 908 3.26.880 808 3.26.880 808 3.26.880 734	FT/SEC 18 705-4 11 727-6 14 744-2 11 736-6 16 717-1 11 662-2 13 599-2 16 561-7	FT/SEC 696.6 720.6 743.4 769.3 755.5 700.2 641.9	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2 561-6	TYSEC 784.0 774.7 733.1 609.9 504.5 403.3 356.7 349.2	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0	0ECRÉE 48.38 47.07 44.59 38.38 33.71 29.92 29.06 29.67	1.39 3.17 2.94 2.88 3.60 .67	2.72 16.849 -11.40 2.72 16.84 30.71 39.35	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88	FT/SEC F 737.4 751.7 759.2 771.8 790.8 816.0 830.4 827.6	7/SEC 895.0 907.8 934.2 964.7 998.1 1050.1 1068.2	7/SEC   241.8   213.3   149.7   -36.9   -228.8   -416.4	FT/SEC -551.2 -544.4 -565.9 -623.9 -605.4 -814.4 -884.1	FT/SEC 542.2 561.4 583.5 646.8 733.4 819.7 883.6 904.7	FT/SEC 568.5 584.7 604.0 660.9 740.4 822.4 884.2 905.6
5 17.72 10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57 95 30.24 INCS	TN FT/SE 1048 1048 19-110 1058 19-110 1058 19-740 1044 19-740 1044 19-740 1044 19-740 1044 19-740 19-75 19-7	FT/SEC 8 705.4 1 727.6 1 744.2 1 736.6 6 717.1 1 662.2 3 599.2 561.7 54 530.9 TURN	FT/SEC 696.6 720.6 743.4 769.5 769.5 700.2 641.9 613.1 592.3	FT/SEC 705.0 726.5 743.2 735.6 715.7 662.1 599.2 561.6 530.8	TYSEC 0784.7 784.7 7733.1 609.9 504.5 403.7 359.2 344.9	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0 5-1 8-7	DECRÉE 48.38 47.47 44.59 38.38 33.71 29.92 29.06 29.06 30.21	1.39 3.17 2.94 2.88 3.60 .67 .02 .56	2.72 16.49 -11.40 2.72 16.84 30.71 39.35 42.19 44.41	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88 58.05 59.74	FT/SEC 1 737.4 751.7 759.2 771.8 790.8 816.0 830.4 827.6 829.3	7/SEC 895.0 967.8 934.2 964.7 998.1 1050.1 1068.2 1061.4 1060.0	7/SEC 1 241.8 213.3 149.7 -36.9 -228.8 -416.4 -526.3	FT/SEC -551.2 -544.4 -565.9 -623.9 -605.4 -814.4 -884.1	FT/SEC 542.2 561.4 583.5 646.8 733.4 819.7 883.6 904.7	FT/SEC 568.5 584.7 604.0 660.9 740.4 822.4 884.2 905.6
DIA-1 % SPAN IN 5 17.72 10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57 95 30.24 INCS % SPAN DEGREE 5 -1.25	IN FT/SE 18-580 1048 19-110 1058 19-740 1044 21-600 982 24-200 988 26-880 808 26-800 734 29-600 705 30-270 685 PEGREE DEGREI 2-72 17-1	FT/SEC 18 705-4 10 727-6 11 736-6 11 736-6 10 662-2 10 599-2 10 599-2 10 599-2 10 599-2 10 599-2 10 599-2 10 599-2 10 599-2 10 699-2 10 699-2	FT/SEC 696.6 720.6 743.4 769.3 755.5 740.2 641.9 613.1 592.3 CAMBER DEGREE 62.55	FT/SEC 705-0 726-55 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOLIDTY 2.1g68	T/SEC 0 784.7 784.7 7733.1 609.9 5036.7 349.9 D_FAC	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0 -1 5-4 0MEGA-B	48.38 47.47 38.38 33.71 29.92 29.06 29.67 30.21 LOSS-P TOTAL .0295	1.39 3.17 2.94 2.88 3.60 .67 .02 .56 .94 LQSS-P PROFILE .0295	2.72 16.49 -11.40 2.72 16.43 30.71 39.35 42.19 44.41 P02/ Si	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88 58.05 59.94 DMEGA-B	FT/SEC 1 737.4 751.7 759.2 771.8 790.8 816.0 827.6 827.6 829.3	7/SEC 895.0 907.8 934.2 964.7 998.1 1050.1 1068.2 1061.4 1060.0 EFF-P TATIC .8201	77/SEC 9241.8 241.8 213.3 149.7 136.9 1228.8 1416.4 1526.3 1555.5 1580.4 M-1	FT/S1-24 -5514-24 -5544-5-9 -605-4 -8144-1 -907-4 M-2	FT/SEC 542-2 561-4 583-5 646-8 7319-7 883-0 904-7 925-2 M'-1	FT/SEC 568.5 584.0 660.9 740.4 822.4 884.2 905.6 926.1 M'-2
DIA-1   SPAN   JN   T   T   T   T   T   T   T   T   T	IN FT/SE 18-580 1048 19-110 1058 19-740 1044 21-600 982 24-200 908 26-880 808 26-800 735 30-270 685 	TURN	FT/SEC 696.6 743.4 769.3 769.3 769.3 769.2 641.9 613.1 592.3 CAMBER DEGREE 62.55	FT/SEC 705-0 726-55 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOLIDTY 2.1068 2.0275	T/SEC 784.0 774.7 733.1 609.5 403.3 356.3 344.5 0FAC .4797	FT/SEC 17.2 40.3 38.1 37.0 45.0 8.0 8.0 5.4 8.7 OMEGA-B	48.38 47.44.59 38.38 33.71 29.92 29.06 29.67 30.21 LOSS-P TOTAL .0362	1.39 3.17 2.94 3.60 .67 .02 .56 LQSS-P PROFILE .0362	DEGREE -19-14 -16-49 -11-40 21-40 21-40 21-40 30-71 39-35 42-41 P02/(P01 St	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88 58.05 59.74 DMEGA-B 40CK .00.00	FT/SEC {     737.4     751.7     759.2     771.8     790.8     816.0     830.4     827.6     829.3     EFF-AD     10000	7/SEC 895.0 907.8 934.2 964.7 998.1 1050.1 1068.2 1061.0 EFF-P TATIC .7907	77/SEC 8 241.8 213.3 149.9 -228.8 -416.4 -526.3 -555.4 M-1 .9618	FT/SEC2 -551*24 -553*9 -653*9 -695*4 -884*13 -907*4 M-2 -6346	FT/SFC 24 542.2 561.4 583.6 733.4 819.7 883.7 904.7 925.2 M'-1 .6779	FT/SEC 568.5 568.5 604.0 660.9 740.4 884.2 905.6 926.1 M'-2 .7794 .7918
DIA-1  **SPAN   N  5	TN FT/SE 18-580 1048 19-110 1058 19-740 1044 21-600 982 24-200 988 26-880 734 29-600 735 7NCM DEV DEGREE DEGREI 2-72 17-1 3-42 19-1 3-45 16-1	TURN  DEGREE  305-4  705-4  705-4  705-4  705-4  705-6  717-1  662-2  705-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  706-6  707-1  70	FT/SEC 696.6 743.4 769.3 755.5 769.3 755.5 764.9 613.1 592.3 CAMBER DFGREE 59.62 59.62 59.12	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOLIDTY 2.1068 2.0275 1.9442 1.7502	TYSEC 784.0 774.0 773.1 609.9 504.5 356.7 344.9 D-FAC .4966 .4752 .4143	FT/SEC 17-2 40-3 38-1 37-0 45-0 8-0 -1 5-4 8-7 OMEGA-B .1244 .1470 .1267	#8.38 47.159 38.38 33.71 29.06 29.06 30.21 LOSS-P TOTAL .0362 .0362 .0365	1.39 3.17 2.94 2.88 3.60 .67 .02 .94 LOSS-P PROFILE .0295 .0362 .0261	DEGREE -19-14 -16-40 2-72 16-84 30-35 42-19 44-41 P02/S -9445 -9439 -9439	DEGREE 38.02 36.85 37.28 40.29 44.16 50.87 55.88 59.95 59.94 0MEGA -8 10CK 0000 0000	FT/SEC 1 737.4 751.7 759.2 771.8 790.8 816.0 827.6 827.6 829.3 EFF-AD 101AL 5 .0000 .0000	7/SEC 895-0 907-8 907-8 934-2 964-7 998-1 1050-1 1060-1 1060-0 EFF-P STATIC -8201 -7907 -8163 -8455	T/SEC 8 241.8 213.7 136.9 -228.8 -4166.3 -555.5 -580.4 M-1 .9614 .9474 .8877	FT/SEC 2 -551.2 -555.9 -565.9 -605.4 -8184.1 -900.3 -917.4 M-2 -6143 -6143 -6143 -6143 -6143 -6143	FT/SEC 542.2 561.5 563.5 646.8 733.4 813.7 904.7 925.2 M'-1 .6779 .688.6 .694.8	FT/SEC 568.5 584.0 660.9 740.4 822.4 905.6 926.1 M'-2 .7794 .7918 .8177 .8477
DIA-1 % SPAN IN 5 17.72 10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57 95 30.24  INCS % SPAN DEGREE 5 -1.21 1081 15 -1.86 30 -4.3 50 -5.86	TN FT/SE 1048 1048 19-110 1058 19-110 1058 19-740 1044 21-600 982 24-200 988 28-900 734 29-600 705 30-270 685 7NCM DEGREE DEGREE DEGREE DEGREE DEGREE 2-72 17-1 3-42 19-2 2-54 18-45 14-5 3-45 14-5 3-41 14-5	TFT/SEC .8 705-4 .1 727-6 .1 724-2 .1 736-6 .6 717-1 .1 662-2 .3 599-2 .6 561-7 .4 530-9 TURN DEGREE 39 46-99 41-65 80 35-50 80 35-50 90 35-50 90 35-50 90 35-50 90 35-50	FT/SEC 696.6 720.4 743.4 769.3 769.3 769.3 769.3 641.9 613.1 592.3 CAMBER DEGREE 59.62 59.62 44.81	FT/SEC 705-0 725-0 743-2 735-6 715-7 69-2 561-6 530-8 SOLIDTY 2.1068 2.0275 1.7502 1.7502 1.5472	TYSEC 784.0 774.0 7733.1 609.9 504.5 356.7 349.2 0.FAC .4966 .4797 .4552 .4143	FT/SEC 17.2 40.3 38.1 37.0 45.0 8.0 5.4 8.7 OMEGA-B .1244 .1470 .1267 .0916	48.38 47.459 38.38 33.71 29.06 29.67 30.21 LOSS-P TOTAL .0362 .0362 .0361	1.39 3.17 2.88 3.60 .67 .56 .94 PROFILE .0362 .0362 .0362 .0261	DEGREE -19.149 -119.149 -12.764 -13.754 -119.15 -119.1	DEGREE 38.025 36.025 37.28 40.29 44.16 55.88 58.05 59.94 0MEGA - 8 4000 0000 0000	FT/SEC {     737.4     751.7     759.2     771.8     790.8     820.4     827.6     829.3     EFF-AL	895.0 907.8 934.2 964.7 964.7 1050.1 1068.2 1061.4 1060.0 EFF-PC .8201 .8203 .8455 .8548	7/SEC 8 241.8 243.37 -36.9 -416.3 -555.5 -555.5 M-1 .9648 .94747 .8810	FT/SEC -511.2 -515.4 -5545.9 -565.9 -605.4 -884.1 -900.3 -917.4 M-2 .0515.63146.6314	FT/SEC 542.2 561.4 583.5 646.8 733.4 883.0 904.7 925.2 M'-1 .6779 .6886 .7021 .7134	FT/SEC5 568.7 604.0 660.9 740.4 884.2 905.6 926.1 M'-2 .77918 .8177 .8477
DIA-1    SPAN   JN	TN FT/SE 1048 1048 19-140 1058 19-140 1054 19-140 1054 19-140 1054 19-140 1054 19-140 1055 19-140 1055 19-140 19-1	TURN DEGREE 40.99	FT/SEC 696.6 743.4 769.3 769.3 755.5 641.9 613.1 592.3 CAMBER DEGREE 57.12 44.81 44.81	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOLIDTY 2.1068 2.0275 1.9442 1.7502	TYSEC 784.0 774.1 733.1 609.9 504.5 403.7 356.7 344.9 0-FAC .4966 .4752 .4143 .3730 .35626	FT/SEC 17.2 40.3 38.1 37.0 45.0 8.0 5.4 8.7 0MEGA-B .1244 .1470 .1267 .0916 .0716 .0450	#8.38 47.44.59 38.38.33.71 29.06 29.67 30.21 LOSS-P TOTAL .0252 .0362 .0261 .0251 .0202	1.39 3.17 2.88 3.60 .67 .56 .94 LQSS-P PROFILE .0295 .0362 .0362 .0261 .0252	DEGREE -19-149 -11-40 -12-72 -16-84 -130-35 -19-14-41 -19-14-14-15 -9-14-15	DEGREE 38.02 36.28 40.29 44.16 50.88 58.05 59.74 OMEGA - BHOCK .0000 .00	FT/SEC 1 737.4 751.7 759.2 771.8 790.8 816.0 827.6 827.6 829.3 EFF-AD 101AL 5 .0000 .0000	7/855.0 895.0 907.8 907.8 908.1 1068.2 1061.4 1060.0 EFF-P TATIC .8201 .8455 .8548 .8672	T7/SEC 8 241.8 2139.7 136.9 -228.8 -4166.3 -555.5 -580.4 M-1 .9618 .9474 .88102 .7216	FT/SEC 2 -514.2 -545.9 -565.9 -6025.4 -884.1 -900.4 -884.1 -900.4 -814.6 -917.4 -6311 -5472 -6311 -58254	FT/SEC 542.2 563.5 563.5 646.8 733.4 883.0 904.7 925.2 M*-1 .6779 .6886 .7021 .7134 .7382	FT/SEC 568.5 568.5 604.0 660.9 740.4 822.4 905.6 926.1 M'-2 .7794 .8177 .8477 .8477 .8784 .9366
DIA-1 % SPAN IN 5 17.72 10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57 95 30.24  INCS % SPAN DEGREE 5 -1.2 1036 15 -1.8 30 -4.3 50 -5.8 70 -7.6 85 -7.7	TN FT/SE 18-580 1048 19-110 1058 19-740 1044 21-600 982 24-200 988 26-808 908 28-900 734 29-600 705 7NCM DEV DEGREE DEGREE 2-72 17-1 3-42 19-1 2-54 18-1 -1-53 13-1 -1-19 15-1	TURN DEGREE 39 46.99 41.65 35.50 35.50 35.50 35.50 35.50 35.50 35.50 35.50 35.50 35.50	FT/SEC 696.6 743.4 769.3 755.5 769.3 755.5 769.9 613.1 755.5 769.9 613.1 759.6 62.5 769.6 769.6 7	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOL I D T Y 2.1068 2.0275 1.9442 1.75072 1.5472 1.3865 1.2554	TYSEC 0784.07 7733.19 609.53 1.56 9.9 50 3.56 9.9 356 9.9 356 9.9 356 9.9 356 9.9 4.7 52 3.3 56 56 56 56 56 56 56 56 56 56 56 56 56	FT/SEC 2 17.2 18.1 38.1 37.0 45.0 8.0 8.1 5.4 0 MEGA - B 1244 1470 1267 0716 0420 0722	#8.48 47.44.59 38.38 33.71 29.92 29.66 30.21 COSTAL 0362 03261 0231 0152 0288	DEGREE 0 1.39 3.17 2.88 3.607 .56 .56 .59 PROFILE .0362 .0362 .0251 .0252 .0288	PGREE 149-14-14-14-14-14-14-14-14-14-14-14-14-14-	DEGREE 2 38.02 36.02 36.02 37.28 40.29 44.16 55.88 05.59 - 8.05 40.00 40	FT/SEC {     737.4     751.7     759.2     771.8     790.8     790.8     827.6     827.6     829.3     FF-AD (0000 (000) (0000	895.0 934.2 964.7 934.2 964.7 1050.1 1068.2 1061.4 1060.0 EFF-DC -7907 .81455 .8548 .8990 .8659	T/SEC 8 213-7-9 213-7-9 136-8-4 1-36-8-4 1-32-5-5 1-36-5-4 1-52-5-8 1-52-5-8 1-66-47-7-2-65-17 1-65-17	FT/SEC 24 -551.445.9 -5625.441.3 -6625.441.3 -884.3 -901.7 M-2 436.5 -63129 -63129 -5625.4 -63129 -63129 -63129 -63129 -6420	FT/SFC 542.2 561.4 561.5 646.8 733.4 883.0 904.7 925.2 M'-1 .6779 .6886 .6948 .7021 .7307 .7362 .7382	FT/SEC 568.7 568.7 604.0 660.9 740.4 884.2 905.6 926.1 M'-2 .77918 .8177 .8477 .8784 .9243 .9274
DIA-1    SPAN   JN	TN FT/SE 1048 1048 19-110 1058 19-110 1058 19-740 1044 21-600 982 24-200 908 26-900 734 29-600 705 30-270 685 7NCM DEV DEGREE DEGREE 2-72 17-6 3-42 19-6 -34 18-6 -1-53 13-6 -1-19 15-6 -56 16-7-22 17-6	TURN DEGREE 40.99 40.99 29.11 27.27 29.27	FT/SEC 696.6 743.4 769.3 769.3 755.5 769.3 613.1 592.3 CAMBER DFGREE 59.62 57.12 44.81 45.35 45.96	FT/SEC 705-0 705-0 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOLIDTY 2.10685 1.9442 1.7502 1.7502 1.54865 1.2865 1.2271	TYSEC 784.0 774.1 609.9 504.5 356.7 349.9 0_FAC .4966 .4552 .1143 .3750 .3726 .3979 .4251	FT/SEC 17.2 40.3 38.1 37.0 45.0 8.0 5.4 8.7 0MEGA-B .1244 .1267 .0916 .0720 .0722 .0940	#8.38 47.15 48.38 47.15 38.38 33.71 29.06 29.67 30.21 LOSS-P TOTAL .025 .0362 .0362 .0261 .0251 .0202	1.39 3.17 2.88 3.60 .67 .56 .94 LQSS-P PROFILE .0295 .0362 .0362 .0261 .0252	DEGREE -19-149 -11-40 -12-72 -16-84 -130-35 -19-14-41 -19-14-14-15 -9-14-15	DEGREE 2 38.02 36.02 36.02 37.28 40.29 44.16 55.88 05.59 - 8.05 40.00 40	FT/SEC 1737.4 751.4 759.2 771.8 790.8 8160.4 827.6 827.6 829.3 EFF-AD 101AL 5 .0000 .0000 .0000	895-0 895-0 907-8 934-2 964-7 998-1 1050-1 1068-2 1061-4 1060-0 EFF-P TATIC .8201 .8455 .8548 .8672 .8269 .7933	T/SEC 8 241.8 213.7 1-36.8 213.7 -228.8 426.3 -555.5 -580.4 M-1 .9474 .881015 .6547 .6547 .6547	FT/SEC 2 -551-2 -545-9 -545-9 -625-4 -884-1 -900-4 -884-1 -900-4 -917-4 -0146 -0515 -0472 -63121 -52548 -4902 -4902	FT/SEC 542.2 563.5 563.5 646.8 733.4 883.0 904.7 925.2 M*-1 .6779 .6886 .7021 .7134 .7332 .7332	FT/SEC 568.5 604.0 660.9 740.4 884.2 905.6 926.1 M'-2 .77918 .8177 .8477 .8743 .9366 .9274 .9233
DIA-1 % SPAN IN 5 17.72 10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57 95 30.24  INCS % SPAN DEGREE 5 -1.2 1036 15 -1.8 30 -4.3 50 -5.8 70 -7.6 85 -7.7	TN FT/SE 18-580 1048 19-110 1058 19-740 1044 21-600 982 24-200 988 26-808 908 28-900 734 29-600 705 7NCM DEV DEGREE DEGREE 2-72 17-1 3-42 19-1 2-54 18-1 -1-53 13-1 -1-19 15-1	TURN DEGREE 43.93 TURN DEGREE 44.99 44.99 44.99 29.11 29.27 1 WC/A-1	FT/SEC 696.6 743.4 769.3 755.5 769.3 755.5 769.3 755.5 759.3 CAMBER DFGREE 557.12 51.82 44.81 45.33 45.96 76 762/	FT/SEC 705-0 726-5 743-2 735-6 715-7 662-1 599-2 561-6 530-8 SOL I D T Y 2.1068 2.0275 1.9442 1.75072 1.5472 1.3865 1.2554	TYSEC 0784.07 7733.19 609.53 1.56 9.9 50 3.56 9.9 356 9.9 356 9.9 356 9.9 356 9.9 4.7 52 3.3 56 56 56 56 56 56 56 56 56 56 56 56 56	FT/SEC 17.2 40.3 38.1 37.0 45.0 8.0 5.4 8.7 0MEGA-B .1244 .1267 .0916 .0720 .0722 .0940	#8.48 47.44.59 38.38 33.71 29.06 29.67 30.21 FOTAL 0362 00261 0122 0288	DEGREE 0 1.39 3.17 2.88 3.607 .56 .56 .59 PROFILE .0362 .0362 .0251 .0252 .0288	PGREE 149-149-119-119-119-119-119-119-119-119-	DEGREE 2 38.02 36.02 36.02 37.28 40.29 44.16 55.88 05.59 - 8.05 40.00 40	FT/SEC {     737.4     751.7     759.2     771.8     790.8     790.8     827.6     827.6     829.3     FF-AD (0000 (000) (0000	895-0 895-0 907-8 934-2 964-7 998-1 1050-1 1068-2 1061-4 1060-0 EFF-P TATIC .8201 .8455 .8548 .8672 .8269 .7933	T/SEC 8 213-7-9 213-7-9 136-8-4 1-36-8-4 1-32-5-5 1-36-5-4 1-52-5-8 1-52-5-8 1-66-47-7-2-65-17 1-65-17	FT/SEC 24 -543.9 -563.9 -623.9 -623.9 -623.9 -623.9 -884.1 -907.4 M-2 -01346 -0517	FT/SEC 542.2 563.5 563.5 646.8 733.4 883.0 904.7 925.2 M*-1 .6779 .6886 .7021 .7134 .7332 .7332	FT/SEC 568.5 568.5 604.0 660.9 740.4 824.2 905.6 926.1 M'-2 .77918 .8177 .8477 .8477 .8477 .8477 .8477 .8477 .8477 .8477 .8474 .9366 .9274 .9233 .9254

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

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ROTOR
                                                                                         95% of Design Speed
                                 2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2 FT/SEC F
DIA-1 DIA-2 V-1
                                                                                          .0 829.5
            13.120 16.030 561.2 1039.9 551.2 627.1
                                                                                                                 .00 52.91 36.08 -28.37 682.1 712.8 -401.7 338.7 401.7 490.8
            14.100 16.790 562.5 1016.7 562.5 625.8
                                                                                             .0 901.1
                                                                                                                    .CJ 51.99 37.50 -24.62 709.1 689.0 -431.7 287.1 431.7 514.0
           15.170 17.580 574.0 981.0 574.0 632.6 18.280 19.910 602.5 887.9 602.5 621.8
                                                                                            .0 749.6
                                                                                                                   .00 49.82 38.96 -16.43 738.4 667.9 -464.4 211.4 464.4 558.2
                                                                                            .0 633.7
                                                                                                                    .00 45.52 42.86 -2.16 822.5 624.2 -559.6 24.1 559.6 609.5
            22.190 23.090 627.1 794.9 627.1 598.5
                                                                                                                   .03 42.21 47.26 16.30 924.7 615.2 -679.3 -172.7 679.3 706.9
                                                                                            .0 534.2
            25.880 26.260
                                      633.5 723.7
                                                                                            .0 454.2
                                                                                                                    .63 38.87 51.12 31.76 1017.7 664.0 -792.3 -349.7 792.3 803.9
                                                              633.5 563.4
            28.450 28.610 640.1 676.2 640.1 532.4
                                                                                                                    .00 38.08 53.68 40.78 1080.9 703.3 -871.0 -459.1 871.0 875.9
                                                                                            .0 416.8
                                                                                                                   .C3 39.95 54.53 44.28 1102.2 694.5 -897.6 -484.5 897.6 900.4 .00 41.84 55.32 47.49 1122.4 688.5 -923.0 -507.6 923.0 924.0
            29.320 29.410 639.5 648.3 639.5 497.1
                                                                                            .0 415.9
            30.150 30.180 638.6 624.2 638.6 465.1
                                                                                            .0 416.4
              INCS INCM DEV TURN CAMBER SOLIDTY D-FAC ONEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1
                                                                                                                                                                                                                  4 * - 1
SPAN DEGREE DEGREE DEGREE DEGREE DEGREE
                                                                                                               TOTAL PROFILE POI TOTAL TOTAL SHOCK
                                        8.39 64.45 70.89 2.4332 .2296 .1987 .0359 1.4681 .8930 .8871 .0000 .5068 .9518 .6280
                            2.01
                                                                                                                                                                                                                              ,6524
              -3.98
                                        6.48 62.12 65.96 2.2857
                                                                                       .2969 .1306
                                                                                                                .0260 .0260 1.4949 .9254
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                           2.67
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                           2.97
                                       8.44 57.40
              -3.33
                                                              62.90 2.1570
                                                                                       .3479 .0818
                                                                                                               .0180 .0180 1.4980 .9485
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39.11 1.6905
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                           4.05 11.70 19.36
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                                                              19.66 1.4422
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                           3.91 12.01 10.25 18.34 1.4148
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                        3.68 13.34
                                                   7.83 17.48 1.3891 .5202 .1581 .0384 .0357 1.3839 .7971 .7876
                                                                                                                                                                              ·0114 .5914 .5428 1.0401 .5987
                        NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/
                                                                                     EFF-AT EFF-P
                                                                                                                                                                                      STA-1 STA-2 SLANT-1 SLANT-2
                        RPM LBM/SEC LBM/SEC TOI
                                                                         POI
                                                                                                                                                                                                             DEGREE DEGREE
                          7016. 174.85 39.43 1.1218 1.4533 92.600 93.03
                                                                                                                                                                                                     6.0 86.05 95.02
                                                                                                                                                                                         5.0
 STATOR
             DIA-1 DIA-2 V-1
                                                  V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B*-1 B*-2 V*-1 V*-2 V0*-1 V0*-2
* SPAN IN THE FT/SEC FT
            17.720 18.580 953.9 582.7 589.8 582.3 749.6 18.350 19.110 953.9 598.8 608.4 597.3 734.6
                                                                                                     -2.8 51.80
                                                                                                                              -.30 -19.35 44.46 625.2 816.1 207.1 -571.6 542.5 568.8 3.85 -13.87 42.36 632.6 808.5 172.9 -544.8 561.8 585.1
                                                                                                      40.3 50.37
                                                                                                      53.4 47.61
                                                                                                                              5.03 -9.77 42.24 641.9 819.6 108.6 -551.0 583.8 604.3
            19.070 19.740 937.6 609.1
                                                               631.9 006.8 692.4
            21.140 21.600 889.9 633.3 660.0 632,2 596.7
                                                                                                      37.1 42.10
                                                                                                                              3.36 4.34 44.62 663.2 898.5 -50.5 -624.2 647.2
                                                                                                                              4.20 18.30 47.94 697.9 955.7 -219.4 -694.8 733.8 740.9
            23.970 24.200 838.0 628.2 661.4 626.5 514.5 26.790 26.800 779.2 618.9 652.3 618.2 445.2
                                                                                                      46.1 37.86
                                                                                                      23.7 39.30
                                                                                                                              2.19 29.85 52.25 753.1 1010.7 -375.0 -799.3 820.2
                                                                                                                                                                                                                              822.9
            28.860 28.900 754.6 598.4 631.6 598.1 412.6
                                                                                                      19.2 33.18
                                                                                                                              1.84 36,70 55,36 787,9 1052.3 -470.7 -865.5 883.5
                                                                                                                                                                                                                              884.8
            29.570 29.600 732.2 565.6 604.4 565.3 413.1
                                                                                                                              2.04 39,17 57.46 779.6 1051.1 -492.2 -886.0 905.3
                                                                                                                                                                                                                              906.2
                                                                                                      20.2 34.36
                                                                                                                                                                                                                              926.7
            30.240 30.270 712.9 541.0 579.4 540.7 415.6
                                                                                                     19.8 35.64
                                                                                                                              2.10 41.37 59.20 772.2 1055.9 -510.4 -906.9 925.8
               INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ DMEGA-BEFF-AD EFF-P
                                                                                                                                                                                                                   M'-1
MESPAN DEGREE DEGREE DEGREE DEGREE DEGREE
                                                                                                                 TOTAL PROFILE POI SHOCK TOTAL STATIC
                                                                                                                             .0336 .9457 .0000 .0000 .8144
                            6.12 16.19 82.10 62.53 2.1081 .5718 .1415
                2.16
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                            6.62 19.79 46.52
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                                                               59.56 2.0305 .5474 .1587 .0390
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                                                               46.76 1.2554 .4411
46.76 1.2271 .4671
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                                                                                      EFF-AD FFF-P
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DEGREE DEGREE

11.0 12.0 90.00 90.00

NCOR-1 WCOR-1 WC/A-1 TO2/

RPH LBM/SEC LBM/SEC TO1

P02/

P01

7016. 174.85 39.43 1.1218 1.4199 86.553 87.25

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ROTOR
                                                                                            95% of Design Speed
            DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VD-1 VD-2 B-1 B-2 A'-1 DI-2 VI-1 VI-2 VC-1 VD-2 U-1 U-2
N IN FI/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE FT/SEC FT
% SPAN III
            13.120 16.030 524.1 1008.5 524.1 578.4
                                                                                             .0 B26.1
                                                                                                                  .00 55.00 37.46 -30.10 660.2 668.7 -401.6 335.4 401.6 490.6
            14.100 16.790
                                                                                                   789.3
                                       534.6 982.6
                                                               534.6 585.1
                                                                                              . 0
                                                                                                                    .00 53.44 38.91 -25.18 687.1 647.2 -431.6 275.4 431.6
            15.170 17.560
                                     545.4 949.3
                                                               545.4
                                                                           591 • 3
                                                                                             .0 742.5
                                                                                                                    .00 51.46 40.40 -19.03 716.3 626.4 -464.3 204.5 464.3 538.1
            18.240 19.910
                                      572.1 862.4
                                                               572.1
                                                                                             .0 637.6
                                                                           580.5
                                                                                                                    .00 47.66 44.33 -2.71 800.4
                                                                                                                                                                              583.2 -559.5
                                                                                                                                                                                                       28.2 554.5
                                                                                                                                                                                                                               609.4
            22-190 23-090 595.6 775.9
                                                               595.6
                                                                                             .0 543.3
                                                                                                                    .0u 44.43 48.72 16.38 903.5 579.2 -679.2 -163.4 677.2 .00 41.46 52.51 31.63 998.2 630.2 -792.1 -330.6 792.1
                                                                           553.9
                                                                                                                                                                                                                               706.7
            25.880 26.260
                                                                                             .0 473.1
                                     607.2 714.5
                                                               607.2 535.5
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            28.450 28.610 609.4 675.1 609.4 510.3
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            29.320 29.410 608.9 652.9 608.9 477.6
                                                                                             .0 445.0
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             INCS INCM DEV TURN CAMMER SOLIDITY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1
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                        NCOR-1 WCOR-1 WC/A-1 TO2/
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                        RPM LBM/SEC LBM/SEC TO:
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 STATOR
            DIA-1 DIA-2 V-1
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% SPAN IN
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           17.720 18.580 918.6 534.2 534.4 533.3 747.1 -20.5 54.42 -2.22 -20.96 47.84 572.4 794.8 204.8 -589.2 542.4 568.7
           18.350 19.110 913.7 541.8 557.6
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685.5
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NCOR-1 WCOR-1 -C/A-1 TO2/ EFF-AD EFF-P P02/ RPM LBM/SEC LBM/SEC TOI P01 SQFT 7014. 168.84 38.07 1.1252 1.4376 87.273 88.01 STA-1 STA-2 SLANT-1 SLANT-2 DEGREE DEGREE

11.0 12.0 90.00 90.00

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR

	DIA-1	D14-2	V-1	y-2	VM-1	VM-2	V0-1	V0-2	8-1	8-2	B*-1	B'-2	v*-1		V0*-1		U-1	U-2
% SPAN		IN											FT/SEC !					
5		16.030			503.9		. 0						644.3					
10 15		16.790 17.580			513.9 524.1		.0		.00			-25.45 -19.5#			-431.5 -464.2	266.6 200.2		
30		19.910			549.5		• 0	-			45.48				-559.4	31.8		
50		23.090					. 0						888.2		-679.0			
70		26,260					. 0		.00		53.58		984.0		-791.9			
85	28.450	28.610					.0		.00	42.39	56.04		1049.6		-870.ò			
90		29.410					. 0		.00		56.45		1071.6		-897.2			
95	30.150	30.180	585.3	631.9	585,3	433.7	. 0	459.6	.00	40.66	57.51	46.92	1092.6	635.1	-022.o	-463,9	922.6	923.5
	INCS	INCM	DEV	TURN (	AMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AD	( '4EGA-B	M-1	M-2	11*-1	M'-2
% SPAN	BEGREE 1	DEGREE		DEGREE E					TOTAL	PROFILE	P01	TOTAL	TOTAL S					
5	-2.44	4.47				2.4332	.2900		.0378		1.4625				.4613	.8971		
10	-1.47	5.19				2.2857	.3523				1.4795				.4714	.8684		
15 30	78	5.52		61.06 48.70		2.1571	.4086 .5144		.0221 .0129		1.4849	•9418 •9642			.4911 .5045	.8357 .7546		
50 50	.26 1.21	5.95 6.21				1.6908	5577		.0097		1.4891	.9692	9675		.5264	6743		
70	2.30	6.51				1.5349	5384		.0090		1.4832	.9653			5377	6192		
85	2.70	6.39				1.4422	-5287		0166		1.4765	.9296	9250		.5400	.5857		
90	2.71	6.23				1.4148	.5501		0276		1.4646	.8799			.5397	-5667	.9879	.5591
95	2.59	5.97	12.77			1.3891	.5702		.0367		1.4513				.5391	•54óó	1.0066	5494
		NC 02-1	MACOU1	wo / 4 = 1	T00/	P02/	EFF-AC	CCC-P							STA-1 51	ra=2 C	ANT-1	SLANT-2
				WC/A-1 LBW/SEC		P01	K S	X						3	SIA-I S		EGREE	
				SQFT	. • •	. •-										_		
		7013.	164.20	37.02	1.1267	1.4794	93.471	93.90							5.0	6.0	66.05	95.02
STA	TOR																	
	DIA-1	DIA-2	V-1	V=2	VM=1	VM_2	V0=1	Vn=2	B=1	B=2	D 1 - 1	81-2	V1-1	V+-2	V01-1	vn•-5	(1-1	11-2
% SPAN		DIA-2	V-1 FT/SEC	V=2 FT/SEC 1	VM-1	VM-2 FT/SFC	V0-1	VO-2	B-1 DEGREE	B-2 Degree	BI-1 DEGREE	PI-2		V!-2			U-1 FT/SEC	U-2 FT/SFC
% SPAN 5	IN	IN	FT/SEC		FT/SEC	FT/SEC	FT/SEC	FT/SEC		DEGREE		DEGREE	FT/SEC 1		FT/SEC	FT/SEC	FT/SEC	FT/SEC
5 10	1N 17.720 18.350	18.580 19.110	FT/SEC 896.0 888.0	FT/SEC 1 502.5 505.4	FT/SEC 503.5 526.4	FT/SEC 501.0 504.5	FT/SEC 741.2 715.2	FT/SEC -29.9 26.5	DEGREF 55.81 53.64	DEGREE   -3.42 3.00	DEGREE	DEGREE 50.05 47.90	FT/SEC 1 541.5 548.5	780.6 752.5	FT/SEC 198.9 153.6	FT/SEC -598.5 -558.3	FT/SEC 542.2 561.5	FT/SEC 568.6
5 10 15	17.720 18.350 19.070	IN 18.580 19.110 19.740	FT/SEC 896.0 888.0 873.1	FT/SEC   502.5 505.4 512.8	503.5 503.5 526.4 546.3	FT/SEC 501.0 504.5 509.9	FT/SEC 741.2 715.2 681.0	FT/SEC -29.9 26.5	DEGREF 55.81 53.64 51.26	DEGREE   -3.42 3.00 6.04	DEGREE -21.55 -16.27 -10.12	DEGREE 50.05 47.90 47.17	FT/SEC 1 541.5 548.5 555.4	FT/SEC 1 780.6 752.5 750.1	F7/SEC 198.9 153.6 97.5	FT/SEC -598.5 -558.3 -550.1	FT/SEC 5 542.2 5 561.5 583.6	FT/SEC 568.6 584.8 604.1
5 10 15 30	17.720 18.350 19.070 21.140	IN 18.580 19.110 19.740 21.600	FT/SEC 896.0 888.0 873.1 835.2	502.5 502.5 505.4 512.8 561.1	57/SEC 503.5 526.4 546.3 577.0	FT/SEC 501.0 504.5 509.9 559.4	FT/SEC 741.2 715.2 681.0 603.6	FT/SEC -29.9 26.5 54.0 43.2	DEGREF 55.81 53.64 51.26 46.27	DEGREE   -3.42 3.00 6.04 4.41	DEGREE -21.55 -16.27 -10.12 4.24	DEGREE 50.05 47.90 47.17 47.83	FT/SEC 1 541.5 548.5 555.4 579.9	780.6 780.6 752.5 750.1 833.5	FT/SEC 198.9 153.6 97.5 -43.3	F7/SEC -598.5 -558.3 -550.1 -617.8	FT/SEC 542.2 561.5 583.6 646.9	FT/SEC 568.6 584.8 604.1
5 10 15 30 50	1N 17.720 18.350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.600 24.200	873.1 835.2 875.4	FT/SEC 1 502.5 505.4 512.8 561.1 576.9	FT/SEC 503.5 526.4 546.3 577.0 595.3	501.0 504.5 509.9 559.4 575.3	FT/SEC 741.2 715.2 681.0 603.6 527.4	FT/SEC -29.9 26.5 54.0 43.2 42.8	DEGREF 55.81 53.64 51.26 46.27 41.53	DEGREE   -3.42 3.00 6.04 4.41 4.25	DEGREE -21,55 -16.27 -10.12 4.24 19.02	DEGREE 50.05 47.90 47.17 47.83 50.48	541.5 548.5 548.5 555.4 579.9 630.9	780.6 780.6 752.5 750.1 833.5 904.5	FT/SEC 198.9 153.6 97.5 -43.3 -206.1	FT/SEC -598.5 -558.3 -550.1 -617.8 -697.8	FT/SEC 5 542.2 561.5 583.6 646.9 733.5	57/SEC 568.6 584.8 604.1 661.0 740.5
5 10 15 30 50	17.720 18.350 19.070 21.140 23.970 26.790	IN 18.580 19.110 19.740 21.600 24.200 26.880	896.0 896.0 888.0 873.1 835.2 795.4 763.4	FT/SEC 1 502-5 505-4 512-8 561-1 576-9 584-9	FT/SEC 503.5 526.4 546.3 577.0 595.3 601.2	501.0 504.5 509.9 559.4 575.3 584.2	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3	DEGREF 55.81 53.64 51.26 46.27 41.53 38.03	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69	541.5 548.5 555.4 579.9 630.9 695.9	FT/SEC 1780.6 752.5 750.1 833.5 904.5 986.8	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5	FT/SEC -598.5 -558.3 -550.1 -617.8 -697.8 -795.2	FT/SEC 5 542.2 5 561.5 583.6 6 46.9 733.5	57/SEC 568.6 584.8 604.1 661.0 740.5
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.860	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900	896.0 896.0 888.0 873.1 835.2 795.4 763.4	FT/SEC   502.5 502.5 505.4 512.8 561.1 576.9 584.9 574.1	503.5 503.5 526.4 546.3 577.0 595.3 601.2 590.9	501.0 504.5 509.9 559.4 575.3 584.2 573.7	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8	DEGREE 55.81 53.64 51.26 46.27 41.53 38.03 37.17	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.18	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37	541.5 548.5 548.5 555.4 579.9 630.9 695.9 734.0	780.6 780.6 752.5 750.1 833.5 904.5 986.8 1036.0	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5 -435.2	F7/SEC -598.5 -558.3 -550.1 -617.8 -697.8 -795.2	FT/SEC 542.23 561.5 583.6 646.9 733.5 819.8	FT/SEC 568.6 584.8 604.1 661.0 740.5 884.4
5 10 15 30 50	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 18.580 19.110 19.740 21.600 24.200 26.880	FT/SEC 896.0 888.0 873.1 835.2 795.4 763.4 741.6 727.5	FT/SEC   502.5 502.5 505.4 512.8 561.1 576.9 584.9 574.1 550.4	503.5 503.5 526.4 546.3 577.0 595.3 601.2 590.9 569.1	501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5	DEGREE 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54	73.42 3.00 6.04 4.41 4.25 2.68 2.18	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37	541.5 548.5 548.5 555.4 579.9 630.9 695.9 734.0	780.6 780.6 752.5 750.1 833.5 904.5 986.8 1036.0	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5 -435.2 -451.8	-598.5 -598.5 -558.3 -550.1 -617.6 -697.6 -795.2 -862.6	FT/SEC 5 542.2 5 561.5 5 583.6 6 46.9 7 7 3 3 5 8 19.8 6 883.1	FT/SEC 568.6 584.8 604.1 661.0 740.5 884.4 905.8
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 896.0 888.0 873.1 835.2 795.4 763.4 741.6	FT/SEC 1 502.5 505.4 512.8 561.1 576.9 584.9 574.1 529.4	FT/SEC 503.5 526.4 546.3 577.0 595.3 601.2 590.1 544.1	FT/SEC 501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7 528.8	741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.6	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13	DEGREE 3.42 3.00 6.04 4.41 4.25 2.68 2.18 2.76 2.87	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62	DEGREE 50.05 47.90 47.17 47.83 50.69 56.37 57.98	FT/SEC   541.5   548.5   555.4   579.9   695.9   695.9   726.7   716.9	780.6 780.6 752.5 750.1 833.5 904.5 986.8 1037.0 1043.7	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.3 -451.8 -466.8	F7/SEC -598.5 -558.3 -550.1 -617.8 -697.8 -795.2 -862.6 -879.3	FT/SEC 5 542.2 5 561.5 583.6 6 46.9 7 733.5 8 883.1 9 925.4	FT/SEC 568.6 584.8 604.1 661.0 740.5 884.8 905.8 926.3
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 896.0 888.0 873.1 835.2 795.4 763.4 741.6 727.5 711.6	FT/SEC   502.5   505.4   512.8   561.1   576.9   574.1   550.4   529.4   TURN	FT/SEC 503.5 526.4 546.3 577.0 595.3 601.2 590.9 564.1 CAMBER	FT/SEC 501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7 528.8	741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.6	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.18 2.76 2.87	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56	FT/SEC 1 541.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9	780.6 780.6 752.5 750.1 833.5 986.8 1036.0 1043.7	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5 -435.2 -451.8	-598.5 -598.5 -558.3 -550.1 -617.6 -697.6 -795.2 -862.6	FT/SEC 5 542.2 5 561.5 5 583.6 6 46.9 7 7 3 3 5 8 19.8 6 883.1	FT/SEC 568.6 584.8 604.1 661.0 740.5 884.4 905.8
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	FT/SEC 896.0 888.0 873.1 835.2 795.4 763.4 741.6 727.5 711.6 DEV DEGREE	FT/SEC   502.5   505.4   512.8   561.1   576.9   574.1   550.4   529.4   TURN   DEGREE	FT/SEC 503.5 526.4 546.3 575.3 601.2 590.9 569.1 544.1 CAMBER DEGREE	FT/SEC 501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7 528.8 SOLIDTY	741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6	FT/SEC -29.9 26.5 54.0 42.8 27.3 21.8 26.5 26.5	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.18 2.76 2.87 LOSS-P	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P02/5	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56	FT/SEC 1 541.5 548.5 548.5 559.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL	780.6 780.6 752.5 750.1 753.5 904.5 986.8 1036.0 1037.0 1043.7	77/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5 -435.2 -451.8 -466.8	FT/SEC -598.5 -558.3 -550.3 -617.8 -697.8 -795.2 -862.6 -899.8 M-2	FT/SEC 5 542.2 5 561.5 5 64.6 6 46.6 7 733.5 8 19.8 8 883.1 9 925.4	FT/SEC 568-6 564-6 604-1 661-0 740-5 740-5 884-4 905-8 926-3 M*-2
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	FT/SEC 896.0 887.1 835.2 795.4 763.4 741.6 727.5 711.6 DEV DEGREE 13.06	502.5 502.5 505.4 512.8 561.1 576.9 584.9 550.4 529.4 TURN DEGREE 59.23	FT/SEC 503.5 526.4 546.3 577.0 595.9 601.2 590.9 569.1 544.1 CAMBER DEGREE 62.52	FT/SEC 501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7 528.8 SOLIDTY 2.1086	741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5 26.5	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0381	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.18 2.76 2.87 LOSS-P PROFILE .0381	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01.5	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56	FT/SEC 1 541.5 548.5 555.4 579.9 630.9 695.9 734.0 726.7 716.9	780.6 780.6 752.5 750.1 933.5 904.5 986.8 1037.0 1043.7 EFF-P STATIC .8055	FT/SEC 198.9 153.6 97.5 -43.1 -349.5 -451.8 -466.8 M-1	FT/SEC -598.5 -558.3 -550.1 -697.8 -795.2 -862.6 -879.3 -999.8	FT/SEC 5 542.2 5 561.5 5 583.6 6 46.9 7 733.5 8 819.8 9 925.4 M*-1	FT/SEC 568.6 584.9 661.0 740.5 822.5 884.9 926.3 M*-2 .6702
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10	17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 6.00	IN 18.580 19.110 19.740 21.60 24.200 26.880 29.600 30.270 INCM DEGREE 9.96	FT/SEC 896.0 888.0 873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 18.92	FT/SEC   502.5   505.4   512.8   512.8   514.9   576.9   574.1   529.4   TURN   CEGREE   59.64   50.64   50.64	FT/SEC 503-5 526-4 544-5 577-3 601-2 590-9 544-1 CAMBER DEGREE 629-52	FT/SEC 501.0 504.5 509.9 559.4 575.3 584.2 573.7 549.7 528.8 SOLIDTY	741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5 26.5 0MEGA-B	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0381	DEGREE -3.42 3.000 6.04 4.41 4.25 2.68 2.18 2.76 2.87 LOSS-P PROFILE .0381 .0457	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 PO2/5 P01/5	DEGREE 50.05 47.17 47.83 50.48 53.69 56.37 57.98 59.56	FT/SEC 1 541.5 548.5 555.4 579.9 630.9 695.9 734.0 726.7 716.9 FFF-AD TOTAL	780.6 780.6 752.5 750.1 933.5 904.5 906.8 1037.0 1043.7 EFF-P STATIC .8055	FT/SEC 198.9 153.6 97.5 -43.1 -349.5 -451.8 -466.8 M-1	FT/SEC -598.5 -558.3 -550.3 -617.8 -697.8 -795.2 -862.6 -899.8 M-2	FT/SEC 5 542.2 5 561.5 6 646.9 733.5 8 893.1 9 925.4 M*-1 .4851	FT/SEC 568-6 568-6 604-1 661-0 740-5 884-4 905-8 926-3 M*-2 .6702 .6463
5 10 15 30 50 70 85 85 90 95 <b>% SPAN</b> 5 10	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS 0EGREE 6.00 5.73 3.84	IN 18,58(19,110,119,74(19,110,119,110,119,110,119,110,119,119,1	FT/SEC 896.0 8873.1 835.2 795.4 763.4 763.4 727.5 711.6 DEV DEGREE 13.06 18.92 21.47	FT/SEC 502.5 505.4 512.8 561.1 576.9 584.9 5750.4 529.4 TURN DEGREE 59.64 41.86	FT/SEC 503.5 526.3 546.3 577.0 595.3 601.2 590.9 544.1 CAMBER 02.52 57.01 51.71	FT/SEC 501.0 504.5 509.9 559.4 575.3 5849.7 528.8 SOLIDTY 2.1086 2.0319 1.9511 1.7574	FT/SEC 741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6387 .5930 .5166	FT/SEC -29.9 26.5 54.0 43.2 42.8 27.3 21.8 26.5 26.5 0MEGA-B .1859 .1859 .1849	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0457 .0457 .0457	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01/SI .9444 .9367 .9368	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 OMEGA-B HOCK •0000 •0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .0000 .0000 .0000	780.6 780.6 750.5 750.1 633.5 904.5 906.6 1037.0 1043.7 EFF-P STATIC .8055 .77641 .8431	F7/SEC 198.9 153.6 97.5 97.5 -43.3 -206.1 -435.2 -451.8 -466.8 M-1 .7994 .7923 .7790 .7439	FT/SEC -598.5 -558.3 -550.3 -617.8 -697.8 -795.2 -862.6 -879.3 -399.8 M-2 .4314 .4409	FT/SEC 25 542.2 5 543.6 646.9 733.5 8 883.1 904.9 925.4 M*-1 .4963 .5152 .5152	FT/SEC 568-6 564-9 661-0 740-5 884-4 905-8 926-3 M*-2 .6463 .6469 .7201
5 10 15 30 50 70 85 90 95 5 10 15 30 50	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12	IN 18,586 19,116 19,746 21,600 24,200 26,886 28,900 30,276 INCM DEGREE 9,96 68,66 7,66	FT/SEC 896.0 888.0 873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 18.92 21.47 21.47	FT/SEC 5 502.5 505.4 505.4 516.9 574.1 574.4 552 8 NN E 50.64 45.26 41.86	FT/SEC 503.5 526.4 546.3 577.0 595.3 590.9 569.1 544.1 CAMBER ECREE 59.52 57.01 44.63	FT/SEC 501.0 504.5 509.9 559.4 575.3 5849.7 528.8 SOLIDTY 2.1086 2.0319 1.7574 1.5508	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6387 .5930 .5166 .4699	FT/SEC -29-9 -26-5 -54-0 -43-2 -42-8 -21-8 -26-5 -26-5 -26-5 -1849 -1849 -1024 -1024	DEGREE 55.81 55.81 53.64 51.26 46.27 41.33 37.17 38.53 40.13 LOSS-P TOTAL .0457 .0471 .0199	DEGREE 2 3 - 42 2 3 - 00 6 - 04 4 - 41 4 - 25 2 - 68 2 - 16 2 - 87 PROFILE 0 0 5 8 1 - 0 4 7 1 - 0 2 9 1 - 0 1 9 9 - 0 1 9 9	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P02/ S198 9388 9885 9885 9885	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK .0000 .0000	FT/SEC   541.5   548.5   555.4   579.9   695.9   734.0   726.7   716.9   FFF-AD   100.0   100.	780.6 780.6 750.1 750.1 733.5 986.8 1036.0 1037.0 1043.7 EFF-P STATIC .8055 .7726 .7641 .8431 .8885	F7/SEC 198.9 153.6 97.5 -43.3 -43.3 -435.2 -451.8 -466.8 M-1 .7994 .7993 .7790 .7439	FT/SEC -598.5 -558.3 -550.1 -617.8 -617.8 -795.2 -862.6 -879.3 -999.8 -2 -4314 -4499.4 -4994 -4994 -4994	FT/SEC 25 542.2 5 543.6 546.9 5 6 733.5 6 883.1 904.9 925.4 4915 4915 4915 5 5570	FT/SEC 568-6 568-6 604-1 661-0 740-5 822-5 884-4 905-8 926-3 M*-2 .6702 .6449 .7201 .7829
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 05GREE 06.00 33.844 2.12 .52	IN 18.580 19.110 19.740 21.600 24.200 26.88 28.900 30.270 INCM DEGREE 9.98 9.66 8.62 7.66 6.61	FT/SEC 898.0 898.0 873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 13.92 21.47 18.45 14.92	FT/SEC 5 502-5 505-8 505	FT/SEC 503.5 526.3 5 546.3 5 577.0 595.3 6 90.9 569.1 544.1 CAMBER 62.52 57.01 51.72 44.63	FT/SEC 501.0 504.5 509.9 559.4 575.3 573.7 549.7 528.8 SOLIDTY 2.1086 2.0319 1.7574 1.5508 1.3876	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6175 .5930 .5166 .4699 .4425	FT/SEC -29-9 -26-5 -54-0 -43-2 -42-8 -27-3 -21-8 -26-5 -26-5 -0MEGA-B -1859 -1849 -1024 -0620 -0495	DEGREE 1 55.81 55.81 55.81 55.81 55.81 55.82 46.27 41.27 38.53 37.17 38.54 40.13 LOSS-PL TOTAL .0357 .0471 .0291 .0178	DEGREE 23.42 3.00 6.04 4.41 4.25 2.68 2.18 2.76 2.87 LOSS-P PROFILE .0381 .0471 .0291 .0178	DEGREE -21.55 -16.27 -10.12 4.24 19.02 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 30.13 90.15	DEGREE 50.05 47.93 47.17 47.83 50.48 53.69 56.37 57.98 59.56 OMEGA-B HOCK .0000 .0000	FT/SEC 541.5 548.5 548.5 555.4 679.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL	780.6 780.6 750.1 750.1 733.5 986.8 1036.0 1037.0 1043.7 EFF-P STATIC .8055 .7726 .7641 .8431 .8885 .8990	FT/SEC 198.9 153.6 97.5 198.9 197.5 198.9	FT/SEC -598.5 -558.1 -550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 -4314 -440.9 -484.6 -4944 -494.5	FT/SEC 25 542.2 5 543.6 5 646.9 7 733.5 8 883.1 904.9 925.4 M*-1 .4851 .4963 .51526 .5570 .6126 .515	FT/SEC 568-6 564-6 661-0 740-5 7
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52	IN 18,580 19,110 19,740 21,600 24,200 26,88 28,900 30,270 INCH DEGREE 9,96 6,66 6,66 6,66 6,66 6,66 6,68 6	FT/SEC 896.0 8873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 13.06 121.47 18.45 14.92 17.20	FT/SEC 502.5 505.6 8 505.6 8 505.6 9 576.9 5874.1 5529.4 TURREL 59.64 41.86 37.35 505.22 41.86 37.35 34.99	FT/SEC 503.5 526.3 5 526.3 5 577.0 595.3 5 601.9 5 69.1 5 4 4 .1 CAMBER 62.52 5 7.01 5 1.72 4 4.21 4 5.25	FT/SEC 501.0 509.9 559.4 575.3 584.2 573.7 549.7 528.8 SCLIDTY 2.1086 2.0319 1.7574 1.5508 1.3878	FT/SEC 741.2 741.2 741.2 681.0 603.6 527.4 470.3 453.1 458.6 0-FAC .6387 .6175 .5930 .5166 .4425 .4489	FT/SEC -29-9 -26-5 -54-0 -42-8 -21-8 -21-8 -26-5 -26-5 -26-5 -1609 -1859 -1849 -1024 -0495 -0495 -0703	DEGREE 1 53.64 55.81 53.64 6.27 41.53 37.17 38.54 40.13 LOSS-P TOTAL .0381 .0471 .0291 .0199 .0273	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0471 .0291 .0199 .0178	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P02/5 P01/5 .9844 .9826 .9826	DEGREE 50.05 47.93 47.17 47.83 50.48 53.69 57.98 59.56 OMEGA-B HOCK •0000 •0000 •0000	FT/SEC 541.5 541.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL 0.000 0.00	780.6 780.6 750.1 750.1 750.1 750.1 733.5 986.8 1036.0 1043.7 EFF-P STATIC .8055 .7641 .8431 .8885 .8990	FT/SEC 198.9 153.6 97.5 -43.3 -206.1 -349.5 2 -451.8 -466.8 M-1 .7994 .7923 .7790 .7439 .7056 .6525	FT/SEC -598.5 -559.1 -5550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 .4314 .4409 .4409 .4409 .4409	FT/SEC 25 542.25 543.6 546.9 733.5 883.1 904.9 925.4 8851.5 1557.6 6454.	FT/SEC 568.6 564.6 661.0 740.5 720.5 7
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85 90	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52 .36 1.60	IN 18,58(19,110,119,74) 21.600 24.200 26.88 60.27 INCM DEGREE 9.96 6.61 6.66 6.61 6.86 8.15	FT/SEC 896.0 8873.1 835.2 795.4 761.6 727.5 711.6 DEV DEGREE 13.06 18.92 21.47 18.45 14.92 15.40 15.40	FT/SEC 5 502.8 5052.8 5052.8 561.1 576.9 584.1 5750.4 5529.4 TURREL 3 50.6.4 41.28 350.6.4 41.28 353.39 77	FT/SEC 5.5 503.5 526.3 526.3 577.3 595.3 6010.9 569.1 544.1 CAMMERE 62.5 57.01 44.21 45.26	FT/SEC 501.0 509.9 559.4 575.3 5849.7 528.8 SOLIDTY 2.1986 2.031 1.7574 1.3876 1.2869	FT/SEC 741.2 741.2 715.2 681.0 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6387 .5930 .5166 .4699 .4425 .4489	FT/SEC -29-9 26-5 54-0 42-8 27-3 3 21-8 26-5 0MEGA-B 1609 1859 1849 1024 00703 00703	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457 .0178 .0178 .0291	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0457 .0457 .0291 .0178 .0273 .0389	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01 SI .9444 .9367 .9825 .9870 .9870	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK 0000 0000 0000 0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	FT/SEC 1780.6 750.6 750.1 633.5 904.5 904.5 1037.0 1043.7 EFF-P STATIC .8055 .77641 .8431 .8885 .8990 .8546	F7/SEC 198.9 153.6 97.5 198.9 97.5 198.0 97.	FT/SEC -598.5 -558.3 -558.3 -617.8 -697.8 -795.2 -882.6 -879.3 -399.8 M-2 .4314 .4409 .4848 .4994 .5067 .4963 .4738	FT/SEC 25 542.2 5 543.6 646.9 733.5 8 883.1 904.9 925.4 851.4963.5 5570 61454 6571	FT/SEC 568-6 564-1 661-0 740-5 884-4 905-8 926-3 M*-2 .6463 .7201 .7829 .8955 .8957
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52	IN 18,58(19,110,119,74) 21,600 24,200 26,88(28,90) 27,000 10,27(19,100,100,100,100,100,100,100,100,100,1	FT/SEC 896.0 8873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 13.06 121.47 18.45 14.92 17.20	FT/SEC 5 502.5 505.6 8 4.9 516.9 576.9 9 5529.4 528 50.6 4 4 528 50.6 4 4 528 50.6 50.6 50.6 50.6 50.6 50.6 50.6 50.6	FT/SEC 5.5 503.5 526.3 526.3 577.3 595.3 6010.9 569.1 544.1 CAMMERE 62.5 57.01 44.21 45.26	FT/SEC 501.0 509.9 559.4 575.3 584.2 573.7 549.7 528.8 SCLIDTY 2.1086 2.0319 1.7574 1.5508 1.3878	FT/SEC 741.2 741.2 741.2 681.0 603.6 527.4 470.3 453.1 458.6 0-FAC .6387 .6175 .5930 .5166 .4425 .4489	FT/SEC -29-9 26-5 54-0 42-8 27-3 3 21-8 26-5 0MEGA-B 1609 1859 1849 1024 00703 00703	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457 .0178 .0178 .0291	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0457 .0457 .0291 .0178 .0273 .0389	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01 SI .9444 .9367 .9825 .9870 .9870	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK 0000 0000 0000 0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	FT/SEC 1780.6 750.6 750.1 633.5 904.5 904.5 1037.0 1043.7 EFF-P STATIC .8055 .77641 .8431 .8885 .8990 .8546	F7/SEC 198.9 153.6 97.5 198.9 97.5 198.0 97.	FT/SEC -598.5 -559.1 -5550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 .4314 .4409 .4409 .4409 .4409	FT/SEC 25 542.2 5 543.6 646.9 733.5 8 883.1 904.9 925.4 851.4963.5 5570 61454 6571	FT/SEC 568-6 564-1 661-0 740-5 884-4 905-8 926-3 M*-2 .6463 .7201 .7829 .8955 .8957
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85 90	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52 .36 1.60	IN 18,580 19,110 19,740 21,600 24,200 26,888 28,900 30,270 INCM DEGREE 9,96 8,66 7,66 6,86 8,19 9,73	FT/SEC 896.0 8873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.062 21.47 18.452 15.47 17.20 18.48	FT/SEC 5 502.8 5052.8 5052.8 561.1 576.9 584.1 5750.4 5529.4 TURREL 3 50.6.4 41.28 350.6.4 41.28 353.39 77	FT/SEC 503.5 526.3 5 546.3 5 547.0 595.3 6 6 1 9 5 9 5 9 9 1 5 4 4 . 1 CAMBER 62.5 5 7 . 0 1 5 1 . 7 2 4 4 . 2 1 4 5 . 2 5 4 5 . 9 6 4 6 . 7 5	FT/SEC 501.0 509.9 559.4 575.3 5849.7 528.8 SOLIDTY 2.1986 2.031 1.7574 1.3876 1.2869	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6175 .5930 .5166 .4699 .4768 .5032	FT/SEC -29-9 26-5 54-0 42-8 27-3 3 21-8 26-5 0MEGA-B 1609 1859 1849 1024 00703 00703	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457 .0178 .0178 .0291	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0457 .0457 .0291 .0178 .0273 .0389	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01 SI .9444 .9367 .9825 .9870 .9870	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK 0000 0000 0000 0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	780.6 780.6 750.1 750.1 733.5 986.8 1036.0 1037.0 1043.7 EFF-P STATIC .8055 .7641 .8431 .88990 .8546 .7871	FT/SEC 198.9 153.6 97.5 198.9 197.5 198.9 197.5 198.9	FT/SEC -598.5 -598.5 -550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 .4314 .4409	FT/SEC 25 542 25 543 3 5 5 6 4 6 3 9 9 2 5 4 9 6 3 7 1 6 7 1 6	FT/SEC 568-6 564-1 661-0 740-5 824-4 905-8 926-3 M*-2 .6489 .7201 .7829 .8555 .8927 .8949 SLANT-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85 90	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52 .36 1.60	IN 18,580 19,110 19,740 21,600 24,200 29,600 30,270 INCM DEGREE 9,96 8,62 7,60 6,61 6,86 8,19 9,73 NCOR-1	FT/SEC 896.0 8873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 18.92 115.47 17.20 15.48 19.19	FT/SEC: 502.5505.264.551.6.9 5576.9 5570.4 552.8 84.1 552.9 41.252 505.22 505.23 505.23 505.25 505.2	FT/SEC 503.5 526.3 5526.3 577.0 595.2 5090.9 569.1 544.1 CAMBER 62.52 59.50 57.01 51.72 44.21 45.25 45.96 46.75	FT/SEC 501.0 504.0 509.9 559.4 575.3 5849.7 528.8 SOLIDTY 2.1086 2.0319 1.7574 1.5508 1.2869 1.2255 1.2271	FT/SEC 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6175 .5930 .5166 .4699 .4768 .5032	FT/SEC -29-9 -26-5 -54-0 -43-2 -42-8 -21-8 -21-8 -26-5 -26-5 -08-5 -08-9 -1849 -1024 -0620 -0703 -0703 -0979 -1082	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457 .0178 .0178 .0291	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0457 .0457 .0291 .0178 .0273 .0389	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01/51 P01/51 9444 .9367 .9826 .9876	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK 0000 0000 0000 0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	780.6 780.6 750.1 750.1 733.5 986.8 1036.0 1037.0 1043.7 EFF-P STATIC .8055 .7641 .8431 .88990 .8546 .7871	FT/SEC 198.9 153.6 97.5 198.9 197.5 198.9 197.5 198.9	FT/SEC -598.5 -598.5 -550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 .4314 .4409	FT/SEC 25 542.2 5 543.6 9 7 33.5 8 8 9 3.1 9 9 2 5 .4 9 6 3 .4 9 6 3 .5 15 2 6 6 4 5 4 6 5 7 1 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	FT/SEC 568-6 564-1 661-0 740-5 824-4 905-8 926-3 M*-2 .6489 .7201 .7829 .8555 .8927 .8949 SLANT-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85 90	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS 0EGREE 6.00 5.73 5.34 2.12 .52 .36 1.60	IN 18.586 19.116 19.746 21.600 24.200 26.88 28.900 30.270 INCM DEGREE 9.96 8.62 7.66 6.61 6.86 8.19 9.73 NCOR-1 RPM L	FT/SEC 896.0 873.1 835.2 795.4 741.6 727.5 711.6 DEV DEGREE 13.06 13.06 14.92 15.47 17.20 15.47 17.20 15.47	FT/SEC:55 502.48 5052.48 5561.19 5561.49 5576.49 5529 NNEE:23 505.22 505.22 505.23 505	FT/SEC 503.5 526.3 5 546.3 5 546.3 5 577.0 595.3 6 590.9 569.1 544.1 CAMBER 62.52 57.01 51.72 44.21 45.25 45.96 46.75 T01	FT/SEC 501.0 504.5 509.9 559.4 575.3 573.7 549.7 528.8 SOLIDTY 2.1086 2.0319 1.7574 1.5508 1.2869 1.2255 1.22/P01	FT/SEC 741.2 741.2 715.2 681.0 603.6 527.4 470.3 448.0 453.1 458.6 0-FAC .6175 .5930 .5166 .4699 .4425 .4489 .4768 .5032 EFF-AD	FT/SEC -29-9 -26-5 54-0 43-2 42-8 21-8 26-5 26-5 0MEGA-B -1024 -0495 -0495 -0703	DESREF 55.81 53.64 51.26 46.27 41.53 38.03 37.17 38.54 40.13 LOSS-P TOTAL .0457 .0457 .0457 .0178 .0178 .0291	DEGREE -3.42 3.00 6.04 4.41 4.25 2.68 2.76 2.87 LOSS-P PROFILE .0381 .0457 .0457 .0291 .0178 .0273 .0389	DEGREE -21.55 -16.55 -10.12 4.24 19.02 30.13 36.37 38.46 40.62 P01/51 P01/51 9444 .9367 .9826 .9876	DEGREE 50.05 47.90 47.17 47.83 50.48 53.69 56.37 57.98 59.56 0MEGA-B HOCK 0000 0000 0000 0000	FT/SEC 1 541.5 548.5 548.5 555.4 579.9 630.9 734.0 726.7 716.9 FFF-AD TOTAL .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	780.6 780.6 750.1 750.1 733.5 986.8 1036.0 1037.0 1043.7 EFF-P STATIC .8055 .7641 .8431 .88990 .8546 .7871	FT/SEC 198.9 153.6 97.5 198.9 197.5 198.9 197.5 198.9	FT/SEC -598.5 -598.5 -550.1 -617.8 -697.8 -795.2 -862.6 -879.3 -999.8 M-2 .4314 .4409	FT/SEC 25 542.2 5 543.6 546.9 733.5 8 883.1 904.9 925.4 8515.6 6454.5 652.6 6454.5 652.6 6	FT/SEC 568-6 564-1 661-0 740-5 824-4 905-8 926-3 M*-2 .6489 .7201 .7829 .8555 .8927 .8949 SLANT-2

## Blade-Element and Overall Performance with Stator-Hub Slit Suction 100% of Design Speed

							_00,0		- 0									
		DIA-2	V-1	v-2	VM-1	VM-2	v0=1	_V0-2	8-1	8-2	81-1	B1-2	V'-1	V'-2	V0*-1	V01-2	U-1	U-2
% SPAN		IN	FIZSEC_	FI/SEC	FT/SEC	FT/SEC	T/SEC	FT/SEC J	DEGREE (	EGREE	DEGREE	DEGREE	FT/SEC 1	FT/SEC I	T/SEC	FT/SEC	FT/SEC	FT/SEC_
5		10.020	- 60A*8	1200.9	604.6	733.9	• 0	950.5	•00	52.33	34.74	-30.59	742.1	852.6	-422.9	433.8	422.9	516.7
10		16.790		1181.0			•0		•00	51.27		-27.20			-454.5			
15		17.580		1137.3			• 0		•00	49.41	37.50	-21.84	803.0		-489.0		489.0	566.7
30		19,910		1005.4			• 0	694.2	.00	43.47	41.25	-4.03	893.3	735,7	-589.2	52.4	589.2	641.8
50		23-090		678.8			• 0	550.6	.00	38.77	45.EA	15.77	999.5	714.0	-715.2	-193.7	715.2	
70		<u> 25-260</u>		762.6			0		00	34.05	49.82	33,50	1091.7	759.9	-834.2	-419.1	834.2	846.4
85		28.610		674.0			• 0		.00	33.95	52.68	44.31	1153.1	782.0	-917.0	-545.9	917.0	922.2
90		29.410		641.4			• 0	368.8	.00	35.14	53.62	47.83	1173.9	781.8	-945,1	-579+1	945.1	948.0
95	30.150	30.180	693.8	619.0	693.8	500.8	•0	363.9	.00	36.00	54.47	50.56	1194.1	788.5				972.8
																_		
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEG4-B	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AD	MEGA-B	M-1	M-2	M'-1	M1-2
2 SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE				TOTAL P	ROFILE	P01	TOTAL	TOTAL SI	40CK				
5	-6.26	•65	6.16			2.4329	.1407	. 2496			1.5600	.8677		•0000	,5641	1.1174	.6874	.7933
10	-5,39	1.26	3.86			2.2855	.2064			.0269	1.6151		.9171	• D000	.5782	1.0931	.7175	.7693
15	-4.80	1.49	5-04			2.1565	.2737	• 0991		.0213	1.6151	.9390	.9347	.0000	.5920	1.0454	.7486	.7336
30	-3.96	1.70	9.68			1.9032	.3888	• 0583	•0153	.0153	1.5607		•9502	•0000	.6259	.9126	.8361	.6658
50	-2.90	2.03	11.25	29.90	39.15	1.6887	.4517	.0766	.0218	.0218	1.4893	.9223	.9179	.0000	.6521	.7842	9400	.6371
70	35	2.80	13.34	<u>_16,32</u>		1.5338	.4322	1923		.0228	144020	.8803	8744	0082	.6566	.6755	1.0262	
85	61	3.03				1.4420	.4353	. 1583	•0393	. 0357	1.3278	.7671	.7575	.0140	.6510	.5924	1.0816	.6873
90	51		15.55	5,78		1.4148	4452	• 1934	• <u>0459</u>	-0420	1.3017	.7081	.6970	0162	.6486	.5616	1.0959	. 5846
36	56	2.79	16.40	3.92	17.48	1.3890	.4494	.2165	• 0495	.0452	1.2858	.6672	.6552		.6465	.5405	1.1152	.6884
																-		
			WCOR-1			P02/	EFF-AD	EFF-P						5	TA-1 S	TA-2 S	LANT-1	SLANT-2
		RPM L	BM/SEC I	LBM/SEC	T01	P01	<u> </u>	X									EGREE	DEGREE
				SQFT														
		<b>7</b> 387	186.4.7	42.05	1.1292	1.4559	87.691	88.41							5.0	6.0	86.05	95.02
COTA	mor.																	
STA	TOR																	
STA					1	•								W4-3	V00-1	V02	11-1	150
	DIA-1	DIA-2	V- <u>1</u>	V-5	VM-1	VM-2	V0-1	V0-2	B-1	8-2 E60EE	8++1 056-55	B1-2	V*-1	<b>V1-2</b> Fryese 1	V0*=1	V01-2	U=1 FT/SFC	U=2 FT/cFr
% SPAN	DIA-1	I <sub>N</sub>	FT/SEC !	FT/SEC	FT/SEC	FT/SEC !	T/SEC	FT/SEC I	DEGREE (	EGREE	DEGREE	DEGREE	FT/SEC	FI/SEC !	TYSEC	FT/SEC	FT/SEC	FT/SEC
% SPAN 5	DIA-1 IN 17.720	IN   18•58 <sub>0</sub>	FT/SEC   1124.8	728.6	FT/SEC 726.2	FT/SEC   727+2	859.0	FT/SEC	DEGREE ( 49.79	EGREE	0E <sup>6</sup> REE -21.62	DEGREE 41.48	781.2	970.6	7/5Ec 287.9	FT/SEC -642.6	FT/SEC 571.2	FT/SEC 598.9
% SPAN 5 10	01A-1 1N 17.720 18.350	IN 18.58 <sub>0</sub> 19.110	1124.8 1135.0	728.6 762.9	726.2 759.6	FT/SEC 1 727+2 762+7	859.0 843.2	FT/SEC   -43.7 -12.1	<u>DEGREE (</u> 49.79 47.98	EĞREE   -3.47 92	DE <sup>6</sup> REE -21.62 -18.33	DEGREE 41.48 39.47	781.2 800.5	970.6 988.1	7/5EC 287.9 2 <b>5</b> 1.7	FT/SEC -642•6 -628•	FT/SEC 571.2 591.5	598.9 616.0
% SPAN 5 10 15	DIA-1 IN 17-720 16-350 19-070	IN 18.580 19.110 19.740	FT/SEC   1124.8 1135.0 1115.5	728.6 728.6 762.9 778.2	726.2 759.6 779.4	FT/SEC   2 727+2 3 762+7 4 778+1	859.0 843.2 797.7	FT/SEC   -43.7 -12.1 -5.7	<u>0EGREE (</u> 49.79 47.98 45.65	EGREE   -3.47 92 42	0E <sup>6</sup> REE -21.62 -18.33 -13.22	DEĞREE 41.48 39.47 39.52	781.2 800.5 801.5	970.6 988.1 1008.8	7/SEC 287.9 251.7 183.0	FT/SEC -642.6 -628.6 -641.9	FT/SEC 571.2 591.5 614.7	598.9 616.0 636.3
% <u>SPAN</u> 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140	IN 18.580 19.110 19.740 21.500	1124.8 1135.6 1115.5 1034.	728.6 728.6 762.9 778.2 749.6	726.2 759.6 779.4 801.2	FT/SEC   727+2   762+7   778+1   749+5	7/SEC 859.0 843.2 797.7 653.5	FT/SEC   -43.7 -12.1 -5.7 9.5	<u>DEGREE (</u> 49.79 47.98 45.65 39.17	EGREE   -3.47 92 42 .73	DEĞREE -21.62 -18.33 -13.22 1.98	DEĞREE 41.48 39.47 39.52 42.50	781.2 800.5 801.5 803.6	970.6 988.1 1008.8 1016.7	7/SEC 287.9 251.7 183.0 -27.9	FT/SEC -642.6 -628.6 -641.9 -686.8	FT/SEC 5 571.2 5 591.5 614.7 681.4	598.9 616.0 636.3 696.2
% <u>SPAN</u> 5 10 15 30 50	DIA-1 17-720 18-350 19-070 21-140 23-970	IN 18.580 19.110 19.740 21.500 24.200	1124-8 1135-0 1115-5 1034- 937	728.6 728.6 762.9 778.2 749.6 719.0	726.2 726.2 759.6 779.4 801.2 772.9	727.2 727.2 762.7 778.1 749.5 718.8	7/SEC 859.0 843.2 797.7 653.5 530.2	FT/SEC   -43.7 -12.1 -5.7 9.5 15.2	DEGREE ( 49.79 47.98 45.65 39.17 34.42	EGREE   -3.47 92 42 .73	DEGREE -21.62 -18.33 -13.22 1.98 17.39	DEGREE 41.48 39.47 39.52 42.50 46.76	781.2 800.5 801.5 803.6 811.7	970.6 988.1 1008.8 1016.7 1049.8	7/SEC 287.9 251.7 183.0 -27.9 -242.4	FT/SEC -642.6 -628.6 -641.5 -686.6 -764.6	FT/SEC 5 571-2 5 591-5 9 614-7 8 681-4 772-6	598.9 616.0 636.3 696.2 780.0
% <u>SPAN</u> 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790	IN 18-580 19-110 19-740 21-500 24-200 26-880	1124-8 1135-0 1115-5 1034-1 937 835-0	728-6 728-6 762-9 778-2 749-6 719-0 671-0	726.2 759.8 779.4 801.2 772.9	FT/SEC   727+2   762+7   778+1   749+5   718+8   670+9	T/SEC 859.0 843.2 797.7 653.5 530.2	FT/SEC   -43.7 -12.1 -5.7 9.5 15.2 -6.9	49.79 47.98 45.65 39.17 34.42	-3.47 92 42 .73 1.21	0EGREE -21.62 -18.33 -13.22 1.98 17.39 31.58	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45	781.2 800.5 801.5 803.6 811.7 849.5	970-6 988-1 1008-8 1016-7 1049-8 1101-8	7/SEC 287.9 251.7 183.0 -27.9 -242.4	FT/SEC -642.6 -628.6 -641.9 -686.6 -764.6	FT/SEC 571.2 591.5 614.7 681.4 772.6 863.5	FT/SEC 598.9 616.0 636.3 696.2 780.0 866.4
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860	IN 18-580 19-110 19-740 21-500 24-200 26-880 28-900	1124-8 1135-0 1115-5 1034- 937 835-0 754-7	728-6 728-6 762-9 778-2 749-6 719-0 671-0	726.2 759.6 779.4 801.2 772.5 722.2	FT/SEC   727-2   727-2   762-7   778-1   749-5   718-8   670-9   602-0	T/SEC 859.0 843.2 797.7 653.5 530.2 419.0 373.0	FT/SEC   -43.7 -12.1 -5.7 9.5 15.2 -6.9	9.79 47.98 45.65 39.17 34.42 30.10 29.63	-3.47 92 42 .73 1.21 61	0EGREE -21.62 -18.33 -13.22 1.98 17.39 31.58	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45	781.2 800.5 801.5 803.6 811.7 849.5 861.1	970-6 988-1 1008-8 1016-7 1049-8 1101-8	7/SEC 287.9 251.7 183.0 -27.9 -242.4 -444.5	FT/SEC -642.6 -628.6 -641.5 -686.6 -764.6 -873.4	FT/SEC 5 571.2 5 591.5 6 614.7 6 681.4 6 772.6 6 863.5 5 930.2	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4
% SPAN 5 10 15 30 50 70 86 90	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	IN 18.580 19.110 19.740 21.500 24.200 26.880 28.900 29.600	7/SEC   1124-8 1135-0 1115-5 1034-5 937 835-0 754-7 725-7	FT/SEC 728.6 762.9 778.2 749.6 719.0 671.0 602.1	726.2 726.2 759.6 779.4 801.2 772.5 656.1 626.3	FT/SEC   727-2   727-2   762-7   778-1   749-5   718-8   670-9   602-0   564-5	7/SEC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5	FT/SEC   -43.7 -43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7	49.79 47.98 45.65 39.17 34.42 30.10 29.63	-3.47 92 42 .73 1.21 61 -1.04	DEGREE -21.62 -18.33 -13.22 1.98 17.39 -31.58 40.34	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44	781-2 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4	FT/SEC 970.6 988.1 1008.8 1016.7 1049.8 1101.8 1118.6 1112.0	7/5EC 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2	FT/SEC -642.6 -628.6 -641.5 -686.6 -764.6 -973.6 -942.6 -957.6	FT/SEC 5 571 - 2 5 591 - 5 6 61 - 4 6 681 - 4 6 863 - 5 6 930 - 2 6 953 - 1	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1
% SPAN 5 10 15 30 50 70 85	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	IN 18-580 19-110 19-740 21-500 24-200 26-880 28-900	7/SEC   1124-8 1135-0 1115-5 1034-5 937 835-0 754-7 725-7	728-6 728-6 762-9 778-2 749-6 719-0 671-0	726.2 726.2 759.6 779.4 801.2 772.5 656.1 626.3	FT/SEC   727-2   727-2   762-7   778-1   749-5   718-8   670-9   602-0   564-5	T/SEC 859.0 843.2 797.7 653.5 530.2 419.0 373.0	FT/SEC   -43.7 -12.1 -5.7 9.5 15.2 -6.9	9.79 47.98 45.65 39.17 34.42 30.10 29.63	-3.47 92 42 .73 1.21 61	DEGREE -21.62 -18.33 -13.22 1.98 17.39 -31.58 40.34	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45	781-2 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4	970-6 988-1 1008-8 1016-7 1049-8 1101-8	7/5EC 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2	FT/SEC -642.6 -628.6 -641.5 -686.6 -764.6 -973.6 -942.6 -957.6	FT/SEC 5 571 - 2 5 591 - 5 6 61 - 4 6 681 - 4 6 863 - 5 6 930 - 2 6 953 - 1	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17-720 18:350 19:070 21:140 23:970 26:790 28:860 29:570 30:240	18-580 19:110 19:740 21:500 24-200 26-880 28-900 29-600 30-270	754.7 706.2	728-6 728-6 762-9 778-2 749-6 719-0 671-0 632-1 564-5 536-3	FT/SEC 726.2 759.6 779.4 801.2 772.5 656.1 626.3 605.6	FT/SEC   727-2   727-2   728-1   749-5   718-8   670-9   602-0   564-5   536-3	77.5EC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0	743.7 -43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7	29.63 30.35 30.93	-3.47 92 42 .73 1.21 61 -1.04 36	0EGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49	781.2 800.5 801.5 801.5 803.6 811.7 849.5 861.1 858.4 861.0	970-6 988-1 1008-8 1016-7 1016-8 11118-6 1112-0 1112-4	7/SEC 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7	FT/SEC -642.6 -641.5 -686.6 -764.6 -873.6 -942.6 -957.6 -974.6	FT/SEC 5 571.2 5 571.2 6 591.5 6 61.4 7 772.6 6 863.5 5 930.2 9 974.7	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.1 975.7
% SPAN 5 10 15 30 50 70 86 90 95	DIA-1 17-720 18-350 19-070 21-140 23-790 28-860 29-570 30-240 INCS	IN 18-580 19-110 19-740 21-500 24-200 26-880 28-900 29-600 30-270 INCM	1124-8 1135-0 1115-5 1034- 937 835-0 754-7 706-2 0EV	728-6 728-6 762-9 778-2 749-6 719-0 671-0 632-1 564-5 536-3	726.2 759.6 779.4 801.2 772.5 656.1 626.3 605.6	FT/SEC   727-2   727-2   762-7   778-1   749-5   718-8   670-9   602-0   564-5	77.5EC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0	743.7 -43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7	DEGREE ( 49.79 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.93	-3.47 92 42 .73 1.21 61 -1.04 36	DEGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27	DEGREE 41.48 39.47 39.52 42.50 46.76 57.45 57.49 61.18	781.2 800.5 801.5 803.6 811.7 849.5 861.1 858.4 861.0	970.6 988.1 1008.8 1016.7 10149.8 11118.6 1112.4 EFF-P	7/5EC 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2	FT/SEC -642.6 -628.6 -641.5 -686.6 -764.6 -973.6 -942.6 -957.6	FT/SEC 5 571 - 2 5 591 - 5 6 61 - 4 6 681 - 4 6 863 - 5 6 930 - 2 6 953 - 1	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1
% SPAN 5 10 15 30 50 70 86 90 95	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 29-570 30-240 INCS DEGREE	IN 18.580 19.110 19.740 21.500 24.200 26.880 28.900 29.600 30.270 INCM DEGREE	1124-8 1135-6 1135-6 1115-5 1034-7 835-0 754-7 706-2 0EV	728-6 728-6 762-9 778-2 749-6 671-0 672-1 564-5 536-3 TURN DEGREE	71/SEC 726-2 759-8 779-4 801-2 772-6 656-1 626-3 605-8 CAMBER DEGREE	FT/SEC 2 727-2 762-7 778-1 778-1 749-5 718-8 670-9 1 602-0 564-5 5 556-3 SOLIDTY	7556 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0	-43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7 1.1	#9.79 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P	-3.47 92 42 .73 1.21 -1.04 36 .12 LOSS-P	DEGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5	DEGREE 41.48 39.47 39.52 42.50 52.45 57.44 59.49 61.18	781-2 800-5 801-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0	970-6 988-1 1008-8 1016-7 1049-8 1101-8 1118-6 1112-0 1112-4 EFF-P	287.9 287.9 251.7 183.0 -27.9 -242.9 -449.5 -557.2 -586.6 -611.7	FT/SEC -642.6 -628.6 -641.5 -641.5 -764.6 -764.6 -973.6 -974.6 M-2	FT/SEC 5 571.2 6 571.5 6 14.7 6 61.4 772.6 6 63.5 6 930.2 6 930.2 6 974.7 M*-1	FT/SEC 598.9 616.0 636.3 780.0 666.4 931.5 934.1 975.7
% SPAN 5 10 15 30 50 70 86 90 95	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE 01	IN 18.580 19.110 19.740 21.500 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 3.97	1124-8 1124-8 1135-6 1115-5 1034- 937 835-0 754-7 706-2 0EV DEGREE 13-04	728-6 728-6 762-9 778-2 749-6 719-0 671-0 632-1 564-5 536-3 TURN DEGREE 53-26	726.2 759.8 759.8 779.4 801.2 772.6 656.1 626.3 605.8 CAMBER DEGREE 62.5	FT/SEC   727-2   762-7   778-1   749-5   718-8   670-9   602-0   564-5   536-3   Soliday	7556 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC	FT/SEC -43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7 1.1 OMEGA-B	49.79 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P ToTAL 0299	-3.47 92 42 .73 1.21 -1.04 36 .12 LOSS-P	DEGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5	DEGREE 41.48 39.47 39.52 46.76 52.45 57.44 59.49 61.18	781-2 800-5 801-5 801-5 803-6 811-7 8-9-5 861-1 858-4 861-0 EFF-AD OTAL	970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-4 EFF-P STATIC -8354	287.9 287.9 251.7 183.0 -27.9 -242.9 -444.5 -557.2 -586.6 -611.7 M-1	FT/SEC -642.6 -628.0 -641.5 -764.6 -764.6 -873.6 -957.6 -974.6 M-2	FT/SEC 5 571-2 5 591-5 7 614-7 6 614-7 6 63-5 6 63-5 772-6	FT/SEC 598.9 616.0 636.3 696.2 780.0 866.4 931.5 934.1 975.7 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE -011	IN 18.580 19.110 19.710 21.500 24.200 26.880 29.600 30.270 INCM DEGREE 3.97 4.36	FT/SEC 1124-8 1135-6 1115-5 1034-7 937 835-0 754-7 706-2 0EV DEGREE 13-04 15-06	FT/SEC 728+6 762+9 778-2 749+6 719-0 671+0 602-1 536-3 TURN DEGREE 53-26 48-90	726.2 759.6 759.6 779.4 801.2 772.5 656.1 605.6 CAMBER DEGREE 62.57 59.65	FT/SEC 727-2 2 727-2 3 762-7 4 778-1 2 749-5 7 78-8 2 670-9 1 564-5 3 536-3 SOLIDTY 7 2-1060 5 2-1060	77.5EC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   -1260   -1404	49.79 47.98 45.65 39.17 34.42 30.10 29.63 30.93 LOSS-P TCTAL .029 .0346	-3.47 92 42 73 1.21 -1.04 36 12 LOSS-P PROFILE .0243	DEGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MEBA-B HOCK 0235	781-2 800-5 801-5 801-5 801-5 801-7 849-5 861-1 858-4 861-0 EFF-AD FOTAL	970-6 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150	287.9 287.9 251.7 183.0 -27.9 -242.4 -441.5 -557.2 -586.6 -611.7 M-1	FT/SEC -642.6 -641.9 -646.8 -764.8 -764.8 -973.4 -9574.6 M-2 .630(.6617	FT/SEC 5 571-2 5 571-2 6 19-7 6 19-7 8 681-8 9 772-6 9 863-8 9 9 30-2 9 9 74-7 M'-1 0 7222 7 7338	FT/SEC 598.9 636.3 696.2 780.0 96.0 931.5 934.1 975.7 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE01186	IN 18.580 19.110 19.740 21.500 26.880 28.900 29.600 30.270 INCM DEGREE 3.97 4.36 3.50	1124-8 1124-8 1135-0 1115-5 1034- 937- 835-0 754-7 706-2 0EV DEGREE 13-04 15-06	FT/SEC 728-6 768-6 768-2 749-6 719-0 672-1 568-5 536-3 TURN DEGREE 53-26 48-90	FT/SEC 726.2 759.6 759.6 779.4 801.2 772.2 656.1 626.3 605.6 CAMBER DEGREE 62.55 59.65	FT/SEC   277-2   778-1   778-1   778-1   778-2   718-8   670-9   602-0   564-5   536-3   SOLIDTY   7 2-1060   2-10262   1-9425	T/SEC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5101 .4845	FT/SEC -43.7 -12.1 -5.7 9.5 15.2 -6.9 -11.0 -3.7 1.1 OMEGA-B .1260 .1404 .1180	49.79 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0396	-3.47 92 42 .73 1.21 -1.61 -1.36 .12 LOSS-P PROFILE .0243 .0243	DEGREE -21.62 -18.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382 .9428	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MEBA-B HOCK .0235 .0235	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 EFF-AD FOTAL 0000 0000	970-6 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150	287.9 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0364 1.0110	FT/SEC -6426 -6426 -6416 -6416 -6416 -6416 -7646 -6734 -957 -6661 -6776 -66176 -6776	FT/SEC 5 571-2 5 571-2 6 614-7 8 681-4 7 72-6 9 863-1 6 930-2 9 974-7 M*-1 0 .7222 7 .7338	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1 975.7 M'-2
% SPAN 5 10 15 30 50 70 85 90 95 3 SPAN 5 10	DIA-1 IN 17-720 16-350 19-070 21-140 23-970 26-790 29-570 30-240 INCS DEGREE0186 -3-71	IN 18-580 19-110 19-740 21-500 26-680 28-900 29-600 30-270 INCM DEGREE 3-97 4-36 3-50 1-14	1124-8 1124-8 1135-0 1115-5 1034- 937- 835-0 754-7 706-2 0EV 0EGREE 13-04 15-06 15-04	FT/SEC 728-6 762-8 778-2 749-6 719-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44	FT/SEC 726.2 759.6 779.4 801.2 772.4 656.1 626.6 605.8 CAMBER DEGREE 62.5 59.6 51.88	FT/SEC 2 727-2 778-1 778-1 749-5 718-8 670-9 1 602-0 564-5 536-3 SOLIDTY 7 2-1060 2-0262 1-9425 1-7486	859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   .1260   .1404   .1180   .1037	49.79 47.86 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0374	-3.47 -3.47 -9.22 -7.3 1.21 -1.04 -1.04 -1.24 -0.243 .0.242 .0.248 .0.296	0E6REE -21.62 -16.33 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382 .9428	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0235 .0262 .0215	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL -0000 -0000	970-6 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STAYIC -8354 -8150 -8470	287.9 287.9 251.9 251.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0346 1.0346 1.0110 .9313	FT/SEC -642.6 -628.6 -641.5 -686.8 -764.6 -942.6 -957.6 M-2 .6300 .6617 .6548	FT/SEC 5 571-2 5 571-2 5 91-3 6 614-7 8 683-4 8 772-6 9 930-2 8 953-1 6 974-7 M*-1 0 .7222 7 7338 8 .7305	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881
% SPAN 5 10 15 30 50 70 86 90 95 3 SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 29.570 30.240 INCS DEGREE -01 -10 -086 -3.71 -5.21	IN 18-580 19-110 19-740 21-500 24-200 26-880 28-900 29-600 30-270 INCM DEGREE 3-97 4-36 3-50 1-14	TI/SEC 1124-8 1135-0 1115-5 1034- 937 754-7 725-7 706-2 0EV DEGREE 13-04 15-04 15-04 12-00	728.6 728.6 728.6 718.2 749.6 719.0 672.1 564.5 536.3 TURN DEGREE 53.26 48.90 46.07 38.44	FT/SEC 726-2 759-8 779-8 801-2 772-2 656-1 626-6 605-8 CAMBER DEGREE 52-5 57-16 51-88 44-88	FT/SEC   2 727.2 727.2 727.2 73.4 718.8 2 670.9 1 564.5 5 56.3 50LIDTY   2.1060 5 2.0262 5 1.5465 2 1.5465	77.5EC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5101 .4845 .4511	-43.7 -43.7 -12.1 -5.7 -9.5 15.2 -6.9 -11.0 -3.7 1.1 0MEGA-B -1260 -1404 -1180 -1180 -1037 -0810	9-59-63-65-65-65-65-65-65-65-65-65-65-65-65-65-	-3.47 -3.47 -9.22 42 -7.3 1.21 -1.04 -1.36 -1.2 LOSS-P PROFILE -0.243 -0.248 -0.248 -0.248	0E6REE -21.62 -18.33 -13.58 17.39 31.58 43.13 45.27 P02/ 5.9382 .9382 .9428 .9550	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 61.18 0MESA-B HOCK .0235 .0262 .0215 0000	781-2 800-5 801-5 801-5 801-7 889-5 861-1 858-4 861-0 IFF-AD FOTAL -0000 -0000 -0000	FT/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150 -8484 -8470 -8542	77.5EC 287.9 287.9 287.9 287.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0364 1.0110 .9313	FT/SEC -642-6 -628-6 -641-5 -686-8 -764-8 -773-1 -942-6 -974-6 M-2 -6300 -6611 -6776 -6584 -6291	FT/SEC 5 571-2 5 571-2 5 91-3 6 14-7 6 614-7 6 63-5 6 772-6 6 930-2 7 974-7 M*-1 0 -7222 7 7336 6 7336 7 7336 8	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 931.5 975.7 M*-2 8392 8570 8881 9186
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE01863.71 -5.21 -7.48	IN 18-580 19-110 19-740 21-500 26-880 28-900 29-600 30-270 INCM DEGREE 3-50 1-14 -33 -1-35	TI/SEC 1124-8 1135-6 1115-5 1034-7 835-0 754-7 706-2 0EV DEGREE 13-04 15-04 15-04 12-00 12-29	FT/SEC 728-6 728-6 762-9 778-2 749-6 671-0 672-1 564-5 536-3 TURN, DEGREE 53-26 48-90 46-07 38-44 33-21 30-71	FT/SEC 726-2 759-8 779-8 801-2 772-6 656-6 605-8 CAMBER DEGREE 62-55 57-18 44-84 44-34	FT/SEC 2 727-2 778-1 778-1 778-1 778-2 718-8 602-0 1 564-5 536-3 SOLIDTY 7 2-1060 5 2-0262 5 1-9425 6 1-5465 1 1-3861	859-0 843-2 797-7 653-5 530-2 419-0 373-0 366-5 363-0 D-FAC .5387 .5387 .4511 .4945 .4511	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   .1260   .1404   .1180   .1037   .0810   .0516	9-79 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0714 .0262 .0186	-3.47 -3.47 -3.47 -3.42 -3.1.21 -3.61 -1.04 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -1.2 -3.36 -3.36 -3.2	0E GREE -21.62 -18.32 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/P01 5.93 P2.9428 .9598 .9840	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0235 .0262 .0215 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL .0000 .0000 .0000	FT/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8470 -8487 -8479	77.5EC 287.9 287.9 251.7 183.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0310 .9313 .8382 .7433	FT/SEC -642.6 -642.6 -642.6 -642.6 -642.6 -642.6 -686.8 -764.6 -764.6 -957.6 -974.6 M-2 -6300 -6617.6 -629.5882	FT/SEC 571-2 571-2 591-3 614-7 8 681-4 772-6 930-2 8 930-2 8 953-1 974-7 M*-1 0 .7322 7 .7336 1 .7336	FT/SEC 598.9 636.3 696.2 780.0 666.0 780.0 780.0 780.0 780.0 780.0 931.5 934.1 975.7 M*-2 8392 8570 8785 8881 9186
% SPAN 5 10 15 30 50 70 85 90 95 3 SPAN 5 10 15 30 50 70	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE01063-715-217-12	IN 18.580 19.110 19.740 21.500 26.680 28.900 29.600 30.270 INCM DEGREE 3.97 4.36 3.50 1.14 .33 -1.35	1124-8 1124-8 1135-6 1115-5 1034- 937- 835-0 754-7 706-2 0EV 0EGREE 13-04 15-04 15-04 15-04 14-78 12-00 14-02	FT/SEC 728-6 762-2 778-2 749-6 719-0 672-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67	FT/SEC 72662 7596 7796 80162 77265 65666 6056 6056 62665 50765 59765 59765 59765 59765 59765	FT/SEC 2 727.2 778.1 778.1 749.5 718.8 6 70.9 1 602.0 3 564.5 3 536.3 SOLIDTY 7 2.1060 5 2.0262 6 1.9425 8 1.7486 2 1.5465 4 1.3861	77.SEC 859.0 843.2 797.7 653.5 530.2 419.0 366.5 363.0 D-FAC .5387 .5387 .4511 .4095 .4511 .4095 .3998	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   0MEGA-B   .1260   .1404   .1180   .1037   .0810   .0516   .0596	9.79 47.99 47.98 45.65 39.17 34.42 30.10 29.63 30.35 30.35 30.93 LOSS-P TOTAL 0299 .0394 .0202 .0202 .0202 .0202	-3.47 92 42 .73 1-21 61 -1.06 -12 LOSS-P PROFILE .0243 .0243 .0296 .0262 .0262	0E6REE -21.62 -18.32 -13.32 -13.32 -13.33 -13.34 -13.45.27 P02/P01 S .9382 .9550 .9688 .9648 .9845	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0265 .0262 .0215 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL -0000 -0000 -0000 -0000	FT/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150 -8470 -8579 -8601	71/5EC 287.9 251.9 251.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0346 1.0110 .9313 .8382 -6673	FT/SEC -642-6 -642-6 -641-5 -686-8 -764-6 -942-6 -978-6 M-2 -6300 -6611 -6776 -6546 -5869 -5889 -5889	FT/SEC 571-2 591-3 9614-7 863-4 772-6 983-2 974-7 M*-1 0 .7222 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338 7.7338	FT/SEC 598.9 616.0 636.3 696.2 780.0 866.4 931.5 934.1 975.7 M'-2 8392 8392 8392 8393 8493 8493 8493 8493 8493 8493 8493
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 96	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE0186 -3-71 -5-21 -7-48 -7-12	IN 18.580 19.110 19.740 21.500 26.680 28.900 29.600 30.270 INCM DEGREE 3.97 4.36 3.50 1.14 .33 -1.3561	TISEC 1124-8 1135-0 1115-5 1034- 937- 835-0 754-7 706-2 OEV DEGREE 13-04 15-06 15-06 15-06 12-00 14-78 12-20 14-02 14-02	728-6 728-6 762-2 778-2 749-6 719-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-71	FT/SEC 726.2 759.4 801.2 772.5 656.1 626.6 605.8 CAMBER DEGREE 62.5 59.6 51.88 44.83 45.33	FT/SEC 2 727-2 762-7 778-1 749-5 718-8 670-9 1602-0 564-5 536-3 SOLIDTY 2-1060 2-1054-5 1-7486 1-5465 1-286	7/SEC 859.0 843.2 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5101 .4845 .4511 .4095 .3798 .4251	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   0MEGA-B   .1260   .1180   .1037   .0810   .0516   .0596   .0781	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 -9.22 -7.42 -7.31 -1.04 -1.04 -1.05 -0.243 -0.243 -0.296 -0.262 -0.025 -0.0232	0E6REE -21.62 -16.32 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382 .9428 .9550 .9698 .9845 .9845 .9845	DEGREE 41.48 39.47 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B MOCK .0235 .0262 .0210 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FOTAL -0000 -0000 -0000 -0000 -0000	FISEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150 -8470 -8542 -8601 -8266	287.9 287.9 251.7 183.0 -27.9 -242.4 -557.2 -586.6 -611.7 M-1 1.0346 1.0346 1.0346 1.0346 1.0346 1.0346 1.0346 1.0346	FT/SEC -642.6 -628.6 -641.5 -686.8 -764.6 -973.1 -974.6 -974.6 M-2 .6300 .6617 .674.6 .6299 .5285 .8905	FT/SEC 571-2 571-2 591-3 772-6 803-1 803-1 803-1 974-7 M'-1 M'-1 0 .7222 7.7338 7	FT/SEC 598.9 616.0 636.3 696.2 780.0 866.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881 .9186 .9660 .9660
% SPAN 5 10 15 30 50 70 85 90 95 3 SPAN 5 10 15 30 50 70	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE01063-715-217-12	IN 18.580 19.110 19.740 21.500 26.680 28.900 29.600 30.270 INCM DEGREE 3.97 4.36 3.50 1.14 .33 -1.35	TISEC 1124-8 1135-0 1115-5 1034- 937- 835-0 754-7 706-2 OEV DEGREE 13-04 15-06 15-06 15-06 12-00 14-78 12-20 14-02 14-02	728-6 728-6 762-2 778-2 749-6 719-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-71	FT/SEC 726.2 759.4 801.2 772.5 656.1 626.6 605.8 CAMBER DEGREE 62.5 59.6 51.88 44.83 45.33	FT/SEC 2 727.2 778.1 778.1 749.5 718.8 6 70.9 1 602.0 3 564.5 3 536.3 SOLIDTY 7 2.1060 5 2.0262 6 1.9425 8 1.7486 2 1.5465 4 1.3861	77.SEC 859.0 843.2 797.7 653.5 530.2 419.0 366.5 363.0 D-FAC .5387 .5387 .4511 .4095 .4511 .4095 .3998	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   0MEGA-B   .1260   .1180   .1037   .0810   .0516   .0596   .0781	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 92 42 .73 1-21 61 -1.06 -12 LOSS-P PROFILE .0243 .0243 .0296 .0262 .0262	0E6REE -21.62 -16.32 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382 .9428 .9550 .9698 .9845 .9845 .9845	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0265 .0262 .0215 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FOTAL -0000 -0000 -0000 -0000 -0000	FT/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-0 1112-4 EFF-P STATIC -8354 -8150 -8470 -8579 -8601	71/5EC 287.9 251.9 251.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0346 1.0110 .9313 .8382 -6673	FT/SEC -642.6 -628.6 -641.5 -686.8 -764.6 -973.1 -974.6 -974.6 M-2 .6300 .6617 .674.6 .6299 .5285 .8905	FT/SEC 571-2 591-3 761-4 763-1 683-4 6930-2 6930-2 772-6 772-6 772-6 772-6 772-6 773-6	FT/SEC 598.9 616.0 636.3 696.2 780.0 866.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881 .9186 .9660 .9660
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 96	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE0186 -3-71 -5-21 -7-48 -7-12	IN 18-580 19-110 19-740 21-500 26-880 28-900 29-600 30-270 INCM DEGREE 3-50 1-14	1124-8 1124-8 1135-6 1115-5 1034- 937- 835-0 754-7 706-2 0EV 0EGREE 13-04 15-04 15-04 14-78 12-00 14-02 15-36	FT/SEC 728-6 728-6 762-9 778-6 719-0 671-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-67 30-67	FT/SEC 726a 759a 759a 801a 772a 656a 605a 605a 605a 605a 605a 605a 605	FT/SEC   2 727-2 727-2 728-1 749-5 718-8 2 670-9 1 564-5 5 36-3 SOLIDTY   2 - 1060 5 2 - 0.262 5 1 - 3861 + 1 - 2865 7 1 - 2271	77.5EC 859.0 843.5 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5387 .4511 .4095 .4511 .4095 .4521 .4494	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   1260   1180   1187   -0516   -0596   -0781   -0942	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 -9.22 -7.42 -7.31 -1.04 -1.04 -1.05 -0.243 -0.243 -0.296 -0.262 -0.025 -0.0232	0E6REE -21.62 -16.32 -13.22 1.98 17.39 31.58 40.34 43.13 45.27 P02/ P01 5 .9382 .9428 .9550 .9698 .9845 .9845 .9845	DEGREE 41.48 39.47 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B MOCK .0235 .0262 .0210 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FOTAL -0000 -0000 -0000 -0000 -0000	FI/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-9 1112-4 EFF-P STATIC -8354 -8150 -848- -8470 -8547 -8560 -8266	71/5EC 287.9 251.9 251.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0110 .9313 .6403 .6403 .6221	FT/SEC -642-6 -642-6 -641-5 -686-8 -764-6 -942-6 -974-6 M-2 -6300 -6611 -6776 -6546 -586 -586 -586 -586 -6490 -6490 -6490	FT/SEC 571-2 571-2 591-3 681-4 772-6 863-4 6930-2 8930-2 772-2 772-2 772-2 773-8	FT/SEC 598.9 636.3 696.2 780.0 866.4 931.5 934.1 975.7 M*-2 8392 8570 8785 8881 9186 9660 9763 9644
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 96	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE0186 -3-71 -5-21 -7-48 -7-12	IN 18-580 19-110 19-740 21-500 26-880 28-900 29-600 30-270 INCM DEGREE 3-97 4-36 3-50 1-14 -33 -1-35 -61 -13 -50	1124-8 1124-8 1135-5 1135-5 1135-5 1135-0 754-7 706-2 0EV 0EGREE 13-04 15-06 15-04 14-78 12-00 14-02 14-02	FT/SEC 728-6 762-6 778-2 749-6 719-0 612-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-67 30-67	FT/SEC 726a2 759a4 801a2 779a4 801a2 772a5 656a6 626a3 626a3 59a65 57a16 51a8 44a3 45a34 45a34	FT/SEC 2 727.2 778.1 778.1 749.5 718.8 2 670.9 1 602.0 3 564.5 3 536.3 SOLIDTY 7 2.1060 2.0262 1.9425 3 1.7486 2 1.5465 1.3851 1.2865 7 1.2553 5 1.2271	859.0 843.5 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5387 .4995 .4994 .4994 EFF-AD	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   1260   1180   1187   -0516   -0596   -0781   -0942	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 -3.47 -92 -42 .73 1.21 -61 -1.04 -36 .12 LOSS-P PROFILE .0243 .0248 .0248 .0248 .0296 .0252 .0248	0E6REE -21.62 -10.33 -13.23 1.98 17.39 31.54 43.13 45.27 P02/ P01 5 .93 P2 .942 P01 5 .95 P0	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0235 .0262 .0215 0000 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL ************************************	FI/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-9 1112-4 EFF-P STATIC -8354 -8150 -848- -8470 -8547 -8560 -8266	71/5EC 287.9 251.9 251.0 -27.9 -242.4 -444.5 -557.2 -586.6 -611.7 M-1 1.0346 1.0110 .9313 .6403 .6403 .6221	FT/SEC -642-6 -642-6 -641-5 -686-8 -764-6 -942-6 -978-6 M-2 -6300 -6611 -6776 -6546 -586	FT/SEC 571-2 571-2 591-3 614-7 8 631-4 772-6 8 930-2 8 953-1 6 974-7 M*-1 0 .7222 7.7336	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881 .9186 .9186 .9186 .9186 .9186 .9186
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 96	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE0186 -3-71 -5-21 -7-48 -7-12	IN 18-580 19-110 19-740 21-500 26-880 28-900 29-600 30-270 INCM DEGREE 3-50 1-14	1124-8 1124-8 1135-5 1135-5 1135-5 1135-5 1135-0 754-7 706-2 0EV 0EGREE 13-04 15-06 15-06 14-78 12-00 12-20 14-02 15-36 16-44 wcor-1	FT/SEC 728-6 762-8 778-2 749-6 719-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-71 30-81 WC/A-1 LBM/SEC	FT/SEC 726a2 759a4 801a2 779a4 801a2 772a5 656a6 626a3 626a3 59a65 57a16 51a8 44a3 45a34 45a34	FT/SEC   2 727-2 727-2 728-1 749-5 718-8 2 670-9 1 564-5 5 36-3 SOLIDTY   2 - 1060 5 2 - 0.262 5 1 - 3861 + 1 - 2865 7 1 - 2271	77.5EC 859.0 843.5 797.7 653.5 530.2 419.0 373.0 366.5 363.0 D-FAC .5387 .5387 .4511 .4095 .4511 .4095 .4521 .4494	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   OMEGA-B   1260   1180   1187   -0516   -0596   -0781   -0942	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 -3.47 -92 -42 .73 1.21 -61 -1.04 -36 .12 LOSS-P PROFILE .0243 .0248 .0248 .0248 .0296 .0252 .0248	0E6REE -21.62 -10.33 -13.23 1.98 17.39 31.54 43.13 45.27 P02/ P01 5 .93 P2 .942 P01 5 .95 P0	DEGREE 41.48 39.47 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B MOCK .0235 .0262 .0210 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL ************************************	FI/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-9 1112-4 EFF-P STATIC -8354 -8150 -848- -8470 -8547 -8560 -8266	71/5EC 287.9 287.9 251.7 183.0 -27.9 -557.2 -586.6 -611.7 M-1 1.0346 1.0110 .9313 .6403 .6403 .6221	FT/SEC -642-6 -642-6 -641-5 -686-8 -764-6 -942-6 -978-6 M-2 -6300 -6611 -6776 -6546 -586	FT/SEC 571-2 571-2 591-3 681-4 772-6 863-4 6930-2 8930-2 772-2 772-2 772-2 773-8	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881 .9186 .9186 .9186 .9186 .9186 .9186
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 96	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE0186 -3-71 -5-21 -7-48 -7-12	IN 18-580 19-110 19-740 21-500 26-880 28-900 29-600 30-270 INCM DEGREE 3-50 1-14 3-50 1-13 -50 MCOR-1 RPM	TISEC 1124-8 1135-0 1115-5 1034-7 754-7 706-2 0EV DEGREE 13-04 15-05 16-44 WCOR-1 BM/SEC	FT/SEC 728-6 728-6 762-9 778-2 749-6 671-0 632-1 564-5 536-3 TURN DEGREE 53-26 48-90 46-07 38-44 33-21 30-67 30-67 30-81 WCA-1 BM/SEC	FT/SEC 726-2 759-8 801-2 772-6 656-6 605-8 CAMBER DEGREE 62-55 57-16 51-88 44-8 45-34 45-34 TO2/	FT/SEC 2 727.2 778.1 778.1 749.5 718.8 2 670.9 1 602.0 3 564.5 3 536.3 SOLIDTY 7 2.1060 2.0262 1.9425 3 1.7486 2 1.5465 1.3851 1.2865 7 1.2553 5 1.2271	T/SEC 859-0 843-2 797-7 653-5 530-2 419-0 373-0 366-5 363-0 D-FAC .5387 .5101 .4845 .4511 .4012 .499- .499- .499- EFF-AD	FT/SEC   -43.7   -12.1   -5.7   9.5   15.2   -6.9   -11.0   -3.7   1.1   0MEGA-B   -1260   -1037   -0810   -0596   -0781   -07	9.79 47.89 45.65 39.17 34.42 30.10 29.63 30.35 30.93 LOSS-P TOTAL 0299 .0346 .0704 .0262 .0186	-3.47 -3.47 -92 -42 .73 1.21 -61 -1.04 -36 .12 LOSS-P PROFILE .0243 .0248 .0248 .0248 .0296 .0252 .0248	0E6REE -21.62 -10.33 -13.23 1.98 17.39 31.54 43.13 45.27 P02/ P01 5 .93 P2 .942 P01 5 .95 P0	DEGREE 41.48 39.47 39.52 42.50 46.76 52.45 57.44 59.49 61.18 0MESA-B HOCK .0235 .0262 .0215 0000 .0000 .0000	FT/SEC 781-2 800-5 801-5 803-6 811-7 849-5 861-1 858-4 861-0 FFF-AD FOTAL ************************************	FI/SEC 970-6 988-1 1008-8 1016-7 1049-8 1118-6 1112-9 1112-4 EFF-P STATIC -8354 -8150 -848- -8470 -8547 -8560 -8266	71/5EC 287.9 287.9 251.7 183.0 -27.9 -557.2 -586.6 -611.7 M-1 1.0346 1.0110 .9313 .6403 .6403 .6221	FT/SEC -642-6 -642-6 -641-5 -686-8 -764-6 -942-6 -978-6 M-2 -6300 -6611 -6776 -6546 -586	FT/SEC 571-2 571-2 591-3 681-4 772-6 863-4 681-4 772-6 930-2 772-6 974-7 M*-1 0 .7222 7.7386 7.7386 7.7585 7.7585 7.7585 6.	FT/SEC 598.9 616.0 636.3 696.2 780.0 666.4 931.5 934.1 975.7 M'-2 .8392 .8570 .8785 .8881 .9186 .9186 .9186 .9186 .9186 .9186

							<b>400</b>	0 OL DO		SPO04								
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V.3-2	B-1	B-2	8:-1	81-2	v*-1	V1-2	Y0'-1	A05	U-1	U-2
% SPAN		16.030		1184.0			•0	FT/SEC 1	•00	52.55		-30.38		834.6			Parce	517.9
10		16.790		1162.9			•0	_	•00	51.58		-27.01	759.9		-455.5		455.5	542.4
15		17.580		1121.7			•0		-90	49.62		-21.49		781.8	-490.1	286.6		567.9
30		19.910		997.9			+0		•90	43.90	41.43				-590.6		590.6	643•2
50		25.200		875.8 			•0		•00	39-33	45.85					-190.6	716.9	
70 85		28.610					•0		•00	34.76 35.13	49.99 52.86		1153.0	769.6	-010-1	-537.1	836-1 919-1	
90		29.410					•0		.00	36.67	53.80		1173.8			-569.0	947.2	
95		30.180			690.5		•0		.00	37.79	54.66		1194.0			-598.0		
	INCS	INCM	DEV	T1 (DA)	CAMPER		D-E44		LACC-D		000/	-te o		سائم فاشمون		M-2	M1-1	M'-2
> PAN	DEGREE	VECDEE	DEBREE I	1 UKN	CAMBER	ZOFIDIT	D-FAC	OMEGA-B					EPF-AU Total S	OMESA-B	M-T	MAC	MT	M5
	-6.09	.82	6.37	65.28	70.89	2.4329	.1601	.2389	•0423		1.5585				3618	1.0988	.6860	.7745
10	-5,22		4.06			2 . 2855			-0270		1.6083			.0000		1.0733		
15	-4.62	1.66	5.39	59.17	62.92	2.1566			•0200		1.6121	.9427	.9388	-0000		1.0287		.7170
30	-3.75	1.88	9.86			1.9033		•	-0130		1.5654			-0000		.9016		.6528
50 70	-2.73	2.20	11.17			1.6888	.4611	.0617	•0176		1.5057		.9342	• 0000		.7806		.6289
70 85	<del>-1.18</del>	2.97 3.21	<del>13.13</del> 14.43			1.5337	<del>.4413</del>		•0212 •0379		1.4235		8962 -7725		6539		1.0259	
90	-,35	3. 17	15.73			1.4148	4621	•1925	•0455	.0815	1.3463	.7193		•0140 •0168			1.0515	
95	-,37	2.97	16.72			1.3590	.4681		•0496	.0452	1.3022	•6763				.5359		
	-					1.03.0			.04.0		1.2055	10705	.0040	- 02-	.0431	. 5557	1.1140	0.14
				WC/A-1		P02/	EFF-AD	EFF-P						5	TA-1 5	14-2 S	ANT-1	SLANT-2
		RP4 LI		LBH/SEC	701	<del>-101</del>	<b>-</b>									Ð	CORES	DEGREE
		74.04		SOFT	1 . 3 3 4 8	1.4689	88.702	80 47									06.08	05 00
	_	7707	105177	71.73	7.1000	1.400.	000.92	99.7							5•0	<b>6.</b> 0	86-05	32.02
STA	<b>YOR</b>																	
	DIA-1	DIA-2	v -1	V-2	VX-1	VM-2	v0=-	Vn=2	8-1	8-2	B*=1	B1-2	v1-1	V*-2	VA7-1	V01-2	et	U=2
% SPAN	DIA-1	DIA-2	FT/SEC	V-2 ET/SEC	VM-1			VD-2	8+1 DEGREE I	B+2 DEGREE (	B'-1 EGREE	BI-2 DEGREE	VI-1 FT/SEC	V1=2 ET/SEC	VO'-1	¥01-2 FT/SEC	U=1 FT/SEC	U=2 FT/SEC
5	17.720	18.580	1106.0	696.2	FT/SEC 708.3	695.4	FI/SEC 849.4	FT/SEC	50.17	DEGREE !	-21.35	DEGREE 42.20	FT/SEC 760.6	FT/SEC   938.7	277.0	FT/SEC -630-3	FT/SEC 572.5	600.2
5 10	17.720 18.350	18.580 19.110	1106.0 1113.8	696.2 730.6	708.3 738.1	695.4 730.5	61/Sec 849.4 834.1	FT/SEC   -30∙0 -3	50.17 48.49	DEGREE 1 01 01	-21.35 -18.10	DEGREE 42.20 40.19	760.6 760.7	938.7 938.3	277.0 271.3	FT/SEC ~630.3 ~617.0	FT/SEC 572.5 592.6	600.2 617.4
5 10 15	17.720 18.350 19.070	18.580 19.110 19.740	1106-0 1113-8 1096-9	696.2 730.6 747.6	708.3 738.1 761.3	695.4 730.5 747.5	61/Sec 849.4 834.1 789.3	*30.0 •3 •3 •3	50.17 48.49 46.02	DEGREE ( *50 -01 -41	=21.35 =18.10 =12.82	DEGREE 42.20 40.19 40.22	760.6 760.7 7 <b>76.7</b> 781.6	938.7 956.3 979.2	1/SEC. 277.0 241.3 173.2	FT/SEC =630-3 =617-0 =632-4	FT/SEc 572.5 592.6 616.1	600.2 617.4 637.7
5 10 15 30	17.720 18.350 19.070 21.120	18.580 19.110 19.740 21.600	1106-0 1113-8 1096-9 1021-9	696.2 730.6 747.6 737.3	708.3 738.1 761.3 786.5	695.4 730.5 747.5 737.2	6125Ec 849,4 834,1 789,3 652.0	-30.0 -3 5.4 8.8	50.17 48.49 46.02 39.63	DEGREE ( * 450 • 01 • 41 • 69	=21.35 =18.10 =12.82 2.24	DEGREE 42.20 40.19 40.22 43.06	760.6 760.6 7 <b>76.7</b> 781.6 788.9	938.7 956.3 979.2 1009.2	277.0 277.0 241.3 173.2 -31.0	FT/SEC =630-3 =617-0 =632-4 =689-0	FT <u>/SEc</u> 572.5 592.6 616.1 683.0	600.2 617.4 637.7 697.8
5 10 15	17.720 18.350 19.070 21.120	18.580 19.110 19.740 21.600	1106-0 1113-8 1096-9 1021-9 933-5	ET/SEC 696.2 730.6 747.6 737.3 709.:	708.3 738.1 738.1 761.3 786.5 764.9	695.4 730.5 747.5 737.2 709.0	FIZSEc 849.4 834.1 789.3 652.0 534,9	51/SEC -30.0 .3 5.4 8.8	50.17 48.49 46.02	DEGREE ( *4-50 -01 -41 -69 -63	EGREE -21.35 -18.10 -12.82 2.24 17.36	DEGREE 42.20 40.19 40.22 43.06 47.41	760.6 760.6 776.7 781.6 788.9 803.1	938.7 956.3 979.2 1009.2 1048.1	77.0 277.0 241.3 173.2 -31.0 -239.5	FT/SEC ~630.3 ~617.0 ~632.4 ~689.0 ~771.6	572.5 572.5 592.6 616.1 683.0 774.4	600.2 617.4 637.7 697.8 781.8
5 10 15 30 50	17.720 18.350 19.070 21.150 23.970 26.790 28.860	18.580 19.110 19.740 21.600 2.200 26.880 28.900	FT/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2	ET/SEC 696.2 730.6 747.6 737.3 709.: 659.6 584.1	FT/SEC 708.3 738.1 761.3 786.5 764.9 715.9	730.5 747.5 737.2 709.0 659.2 583.5	FIZSEC 849.4 834.1 789.3 652.0 534.9 427.2 383.4	-30.0 -30.0 -3 -5.4 -8.8 -10.3	50.17 48.49 46.02 39.63 34.94 30.81	DEGREE ( * 450 • 01 • 41 • 69	=21.35 =18.10 =12.82 2.24	DEGREE 42.20 40.19 40.22 43.06 47.41	760.6 760.6 776.7 781.6 788.9 803.1	938.7 956.3 979.2 1009.2	77.0 277.0 241.3 173.2 -31.0 -239.5 -438.3	FT/SEC -630-3 -617-0 -632-4 -689-0 -771-6 -889-2	572.5 572.5 592.6 616.1 683.0 774.4	600-2 617-4 637-7 697-8 78-8
5 10 15 30 50 70	IN 17.720 18.350 19.070 21.170 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 2.200 26.880 28.900 29.600	FT/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8	ET/Sec 696.2 730.6 747.6 737.3 709.: 659.6 584.1 545.8	FT/SEC 708.3 738.1 761.3 786.5 764.9 715.9 644.8	730.5 747.5 737.2 737.2 709.0 659.2 583.5	FIZSEc 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5	-30.0 -3 -5.4 -8.8 -10.3 -20.8	50.17 48.49 46.02 39.63 34.94 30.81 30.74	0EGREE   0-50 -01 -41 -69 -83 98	-21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 69.35	FT/SEC 760.6 776.7 781.6 788.9 803.1 840.8 847.2 841.4	FT/SEC 938.7 938.7 956.3 979.2 1069.2 1048.1 1137.4 1110.1	277.0 277.0 241.3 173.2 -31.0 -239.5 -38.3 -549.0 -576.8	FT/SEC ~630.3 ~617.0 ~632.4 ~689.0 ~771.6 ~889.2 ~944.0 ~958.6	FT/SEC 572.5 592.6 616.1 683.0 774.4 865.5 732.4 955.3	FT/SEC 600.2 617.4 637.7 697.8 788 868.4 933.6 956.3
5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.170 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 2.200 26.880 28.900	FT/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8	ET/Sec 696.2 730.6 747.6 737.3 709.: 659.6 584.1 545.8	FT/SEC 708.3 738.1 761.3 786.5 764.9 715.9 644.8	730.5 747.5 737.2 737.2 709.0 659.2 583.5	FIZSEC 849.4 834.1 789.3 652.0 534.9 427.2 383.4	-30.0 -3 -5.4 -8.8 -10.3 -20.8	50.17 48.49 46.02 39.63 34.94 30.81		-21.35 -18.10 -12.82 2.24 17.36 -31.45	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 69.35	FT/SEC 760.6 776.7 781.6 788.9 803.1 840.8 847.2 841.4	FT/SEC' 938.7 938.7 956.3 979.2 1069.2 1048.1 1137.4	277.0 277.0 241.3 173.2 -31.0 -239.5 -38.3 -549.0 -576.8	FT/SEC ~630.3 ~617.0 ~632.4 ~689.0 ~771.6 ~889.2 ~944.0 ~958.6	FT/SEC 572.5 592.6 616.1 683.0 774.4 865.5 732.4 955.3	FT/SEC 600.2 617.4 637.7 697.8 788 868.4 933.6 956.3
5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.170 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 2.200 26.880 28.900 29.600	FT/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8	FIZSEC 696.2 730.6 747.6 737.3 709.3 659.6 584.1 545.3	77.5EC 708.3 738.1 761.3 786.5 764.5 644.6 612.1 589.3	730.5 730.5 747.5 737.2 709.0 589.2 583.7 545.7	6125 <u>66</u> 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5	**************************************	50.17 48.49 46.02 39.63 34.94 30.81 30.74 31.75 32.54	0EGREE   01	DEGREE -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 60.35 62.17	FT/SFC 760.6 776.7 781.6 788.9 803.1 840.8 847.2 841.4 841.7	FT/SEC 938.7 956.3 979.2 1009.2 1048.1 1137.4 1110.1 1103.4 1108.8	277.0 277.0 241.3 173.2 -31.0 -239.5 -38.3 -549.0 -576.8	FT/SEC ~630.3 ~617.0 ~632.4 ~689.0 ~771.6 ~889.2 ~944.0 ~958.6	FT/SEC 572.5 592.6 616.1 683.0 774.4 865.5 732.4 955.3	FT/SEC 600.2 617.4 637.7 697.8 788 868.4 933.6 956.3
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 2.200 26.880 28.900 29.600 30.270	1106-0 1113-8 1096-9 1021-9 933-5 750-2 719-8 699-1 DEV	E1/Sec 696.2 730.6 747.6 737.3 709.6 584.1 545.6 517.7 TURN DEGREE	77.5EC 708.3 738.1 761.3 786.9 745.9 644.8 612.1 589.3 CAMBER DEGREE	695.4 730.5 747.5 737.2 709.0 689.2 583.7 545.7 517.7	67256 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5 376.1	30.0 30.0 5.4 8.8 10.3 20.8 -10.3 -2.4 -2.6	50.17 88.49 46.02 39.63 34.94 30.81 30.74 31.75 32.54 LOSS-P	0EGREE	DEGREE -21.35 -18.10 -12.82 2.24 17.36 31.45 40.41 43.30 45.55 PO2/	DEGREE 42.20 40.19 40.22 43.42 53.42 58.27 69.35 62.17 OMESA-8	FT/SFC 760.6 776.7 781.6 788.9 803.1 840.8 847.2 841.4 841.7	FT/SEC 938.7 956.3 979.2 1009.2 1048.1 1137.4 1110.1 1108.8 EFF-P	77.5EC 277.0 241.3 173.2 -31.0 -239.5 -438.3 -5476.8 -600.9	FT/SEC -630.3 -617.0 -632.4 -689.0 -771.6 -889.2 -944.0 -958.6	FT/SEC 572.5 592.8 616.1 683.0 774.4 865.5 732.4 955.3 976.9	600.2 617.4 637.7 697.8 78.8 868.4 933.6 956.3 977.9
5 10 15 30 50 70 85 90 95	IM 17.720 18.350 19.070 21.190 23.970 26.860 29.570 30.240 INCS DEGREE	18.580 19.110 19.740 21.600 2.200 28.900 29.600 30.270 INCM DEGREE 4.40	1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8 699-1 DEV	FIZSEC 696.2 730.6 747.6 737.3 709.: 659.6 585.6 517.7 TURN DEBREE 52.57	77.5EC 708.3 738.1 761.3 786.9 745.9 644.8 612.1 589.3 CAMBER DEBREE 62.56	695.4 730.5 747.5 737.2 709.0 689.2 585.7 517.7 SOLIDTY	67256 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5 376.1 D-FAC	30.0 30.0 3.5 5.4 8.8 10.3 20.8 -10.3 -2.4 -2.6 OMEGA-B	50.17 48.49 46.02 39.63 34.94 30.74 31.75 32.54 LOSS=P TOTAL 0320		DEGREE -21.35 -18.10 -12.82 2.24 17.36 31.45 40.41 43.30 45.55 PO2/ PO1_S .9353	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 69.35 62.17 0MESA-8 40cic	760.6 776.7 781.6 788.9 603.1 849.8 647.2 841.4	FT/SEC 938.7 956.3 979.2 1009.2 1048.1 110.1 1103.4 1108.8 EFF-P STATIC	77.5EC 277.0 241.3 173.2 -31.0 -239.5 -438.3 -5476.8 -600.9	FT/SEC -630.3 -617.0 -632.4 -632.4 -771.6 -889.2 -944.0 -958.6 -980.6 M-2	FT/SEC 572.5 592.8 616.1 683.0 865.5 732.4 955.3 976.9 M*=1	600.2 617.4 637.7 697.8 788 868.4 933.6 956.3 977.9 M°-2
5 10 15 30 50 70 85 90 95	17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .53	18.580 19.110 19.740 21.600 2.200 26.880 29.600 29.600 30.270 INCM DEGREE 4.80	1106-0 1113-8 1096-9 1021-9 933-5 750-2 719-8 699-1 DEV DEGREE 14-00 15-99	FIZSEC 696.2 730.6 747.6 737.3 709.3 659.6 584.1 545.7 TURN DEBREE 52.57 48.48	778.3 738.3 738.3 738.3 744.9 745.9 644.8 612.1 589.3 CAMBER DEBREE 62.56 59.53	695.4 730.5 747.5 737.2 709.0 659.2 583.7 545.7 517.7 SOLIDTY	7125E 849.4 834.3 652.0 534.9 427.2 383.4 376.1 D-FAC	**************************************	50.17 48.49 46.02 39.63 34.94 30.74 30.75 31.75 32.54 LOSS-P TOTAL .0356		DEGREE -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 P02/ -9153 .9304	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 62.17 0MESA-B 40CK	760-6 776-7 781-6 788-9 803-1 840-8 647-2 841-4 841-7 EFF-AD TOTAL .0000	938.7 956.3 979.2 1069.2 1048.1 1137.4 1110.1 1103.4 1108.8 EFF-P STATIC .8284 .8150	77.5EC 277.0 241.3 173.2 -31.0 -239.5 -38.3 -576.8 -600.9 M-1 1.0131 1.0150	FT/SEC -630.3 -617.0 -637.0 -689.0 -771.6 -889.2 -944.0 -958.6 -980.6 M-2	FT/SEC 572-5 592-8 616-1 683-0 774-4 865-5 732-4 955-3 976-9 M*-1	617-5 617-8 617-7 637-7 697-8 78:-8 868-6 933-6 956-3 977-9 M*-2
5 10 15 30 50 70 85 90 95 ** SPAN 5 10	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .83	18-580 19-110 19-740 21-600 2-200 26-880 28-900 29-600 30-270 INCM DEGREE 4-40 3-99	1106-0 1113-8 1096-9 1021-9 933-5 750-2 719-8 699-1 DEV DEGREE 14-00 15-99	FIJSEC 696.2 737.6 737.3 709.: 584.1 545.6 517.7 TURN DEBREE 52.57 48.68	7786.3 7386.3 761.3 764.9 764.9 644.8 612.1 589.3 CAMBER DEGREE 62.56 57.19	695.4 730.5 737.2 709.0 689.2 583.7 545.7 517.7 SOLIDTY	834-4 834-3 652-0 534-9 378-5 376-1 D-FAC .5551 .5249	30.0 30.0 30.0 3.3 5.4 8.8 10.3 20.8 -2.4 -2.6 0MEGA-B .1351 .1252	50.17 88.49 46.02 39.63 34.94 30.81 30.74 31.75 32.54 LOSS-P TOTAL .0356 .0317		DEGREE -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 PO2/ PO1 53 .9304	DEGREE 42.20 40.12 43.06 47.41 53.42 58.27 69.35 62.17 0MESA-8 40CK .9251 .9251	760.6 7760.6 7781.6 788.9 803.1 847.2 841.4 841.7 EFF-AD TOTAL .0000 .0000	938.7 956.3 979.2 1009.2 1048.1 1137.4 1110.1 1103.4 1108.8 EFF-P STATIC .8150.8420	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -549.0 -576.8 -600.9 M-1 1.0131 1.0130 .9932	F1/SEC -630.3 -617.0 -632.4 -689.0 -771.6 -889.0 -980.6 -980.6 M-2 .6003 .6390	FT/SEC 572.5 572.5 596.1 683.0 774.4 865.5 955.3 976.9 M*-1 .6995 .7136	600.2 617.4 637.7 697.8 78.8 868.6 933.6 956.3 977.9 M*-2 .8094 .8270
5 10 15 30 50 70 85 90 95 **.SPAN 5 10	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .53 .54	INCH DEGREE 4-80 10-740 21-600 2-260 28-900 29-600 30-270 INCH 0-600 4-80 3-99 1-64	TI/SEC 1106-0 1113-8 1096-0 1021-9 933-5 833-7 750-2 719-8 699-1 DEV DEGREE 14-00 15-86 14-72	FIZSE 696.2 730.6 747.6 737.3 709.: 659.6 584.1 545.0 517.7 TURN DEBREE 52.57 48.48 45.61 38.94	708.3 738.3 738.3 786.5 764.5 644.8 612.1 589.3 CAMBER 0EGREE 62.56 59.53 57.14 51.86	695.4 730.5 747.5 737.2 709.0 589.3 583.5 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491	632.0 652.0 534.9 652.0 534.9 363.4 378.5 376.1 D-FAC .5551 .529 .4990	30.0 .30.0 .33.5.4 8.8 10.3 -10.3 -2.4 -2.6 OMEGA-B .1351 .1232 .0791	50.17 88.99 46.02 39.63 34.94 30.74 30.75 32.59 LOSS-P TOTAL .0356 .0315 .0316	0EGREE   0-50	PEGREF -21.35 -18.10 -12.82 2.24 17.36 31.45 43.30 45.55 P02/ P01 S .9353 .9304 .9663	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 69.35 62.17 0ME6A-8 40ck -8225 .0251 .0207	760-6 7760-6 7781-6 788-9 803-1 849-8 841-8 841-7 841-7 871-8 8000 0000 0000 0000	FT/SEC 938-7 956-3 979-2 1009-2 1048-1 1137-4 1110-1 1108-8 EFF-P STATIC 9284 -8150 -8420 -846	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -549.0 -576.8 -600.9 M-1 1.0131 1.0131 1.0131 1.0139 .9932	FT/SEC -637.3 -617.6 -689.0 -771.6 -984.0 -958.6 -980.6 M-2 .6003 .6490 .6490	FT/SEC 572.5 572.5 572.6 616.1 683.0 774.4 865.5 932.4 955.3 976.9 M'-1 .6995 .71130	FT/SEC 600.2 617.4 637.7 697.8 788 868.4 933.6 956.3 977.9 M*-2 .8094 .8270 .8500
5 10 15 30 50 70 85 90 95 ** SPAN 5 10	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .83	18-580 19-110 19-740 21-600 2-200 26-880 28-900 29-600 30-270 INCM DEGREE 4-40 3-99	11/5EC 1106-0 1113-8 1096-9 1021-9 933-5 750-2 719-8 699-1 DERPE 14-00 15-99 15-86 14-72 11-81	ET/Sec 696.2 730.6 747.6 737.3 709.2 584.1 545.8 517.7 TURN DEBREE 52.57 48.48 45.61 38.94	708.3 738.1 768.3 786.5 764.9 715.9 644.6 612.1 62.56 59.53 57.14 51.86	695.4 730.5 737.2 709.0 689.2 583.7 545.7 517.7 SOLIDTY	834-4 834-3 652-0 534-9 378-5 376-1 D-FAC .5551 .5249	30.0 5.4 8.8 10.3 -2.4 -2.6 OMEGA-B .1351 .1232 .0791 .0628	50.17 88.49 46.02 39.63 34.94 30.81 30.74 31.75 32.54 LOSS-P TOTAL .0356 .0317		EGREF -21.35 -12.82 2.24 17.36 31.45 40.41 43.30 45.55 P021 S .9353 .9304 .9466 .9768	DEGREE 42.20 40.22 43.06 47.41 53.42 58.27 69.35 62.17 0MESA - 8 40ck .9225 .9251 .9000	760-6 760-6 776-7 781-6 788-9 603-1 849-8 841-4 841-7 EFF-AD 10000 0000 0000 0000	938.7 956.3 979.2 1009.2 1048.1 1107.4 1110.1 1103.4 1108.8 EFF-P STATIC .8284 .8150 .8420 .8420	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -438.3 -549.0 -576.8 -600.9 M-1 1.0131 1.0150 .9132 .9138	FT/SEC +6370.3 +6170.6 +6170.6 +6890.6 +771.6 +9480.6 +989.6 H-2 -6003 -6490 -6490 -6490 -6490 -6490 -6490	FT/SEC 572.5 592.6 616.1 683.0 774.4 865.3 932.4 955.3 976.9 M'-1 .6995 .7112 .7136 .7162	600-2 607-4 637-7 697-8 78-8 868-4 933-6 956-3 977-9 M*-2 .8094 .8270 .8500 .8802
5 10 15 30 50 70 85 90 95 ** SPAN 5 10 15 30 50	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .83 .37 -3.21 -4,68	INCM DEGREE  1.853 INCM INCM INCM INCM INCM INCM INCM INCM	TI/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8 699-1 DEV DERFE 14-00 15-99 15-86 14-72 11-81 14-06	FI/Sec 696.2 730.6 737.3 709.2 659.6 584.1 545.6 517.7 TURN DERREE 52.57 48.48 45.61 38.94 34.11	FT/SEC 708-3 738-1 768-3 786-5 748-6 612-1 589-3 CAMBER 0EGREE 62-56 59-53 57-19 61-86 44-83	695.4 730.5 747.5 737.2 709.0 583.7 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491	77.550 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5 376.1 D-FAC .5551 .5249 .4990 .4562 .4210	30.0 30.0 30.0 3.5 8.8 10.3 -10.3 -2.4 -2.6 0MEGA-B .1351 .1232 .0791 .0628 .0630	50.17 88.99 66.02 39.63 34.94 30.74 31.75 32.54 LOSS-P IOJAL .0356 .0317 .0226		EGREF -21.35 -12.82 2.24 17.36 31.45 40.41 43.30 45.55 P021 S .9353 .9304 .9466 .9768	DEGREE 42.20 40.19 40.22 43.06 47.41 53.42 58.27 69.35 62.17 0ME6A-8 40CK 9251 9207 9000	760-6 7760-6 7781-6 788-9 803-1 849-8 841-8 841-7 841-7 871-8 8000 0000 0000 0000	938.7 956.3 979.2 1089.2 1088.1 1107.4 1110.3 1108.8 EFF-P STATIC .8150 .8420 .8846 .8911 .7051	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -549.0 -576.8 -600.9 M-1 1.0131 1.0131 1.0131 1.0139 .9932	FT/SEC +637-3 +637-3 +689-9 +771-6 +789-9 +989-9 -980-6 M-2 -6003 -6318 -6490 -6431 -64	FT/SEC 572.5 592.6 610.1 683.0 778.4 865.3 955.3 976.9 M*-1 .6995 .7112 .7138 .7162 .7224	617.5 617.7 617.8 78.8 868.6 933.6 956.3 977.9 M*-2 .8094 .8270 .8500 .8802 .9154
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 86	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS INCS INCS INCS INCS INCS INCS INCS	IN 18-580 19-110 19-740 21-600 2-600 28-900 29-600 30-270 INC. 4-80 3-99 1-(4 -63 -63 -55	TI/SEC 1106-0 1113-8 1096-9 1021-9 933-5 750-2 779-8 699-1 DEV DEGREE 14-00 15-86 14-72 11-06 14-06 14-72 11-06 15-87	ET/Sec 696.2 730.6 747.6 737.3 709.1 584.1 545.3 517.7 TUBEREE 52.57 48.48 45.61 38.34.11 32.64 31.72	FT/SEC 708.3 738-1 768.3 768.5 768.5 768.9 644.6 612.1 62.5 62.5 59.63 57.18 64.82 44.38 45.97	695.4 730.5 747.5 737.2 709.0 583.7 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491 1.5465 1.2865 1.2855	TI/SEC 849.4 839.3 789.3 652.0 534.9 383.4 378.5 376.1 D-FAC .5551 .5249 .4962 .4562 .4562 .4562	30.0 5.4 8.8 10.3 -2.4 -2.6 OMEGA-B .1351 .1232 .0791 .0628 .0650 .0678	50.17 48.99 46.02 39.63 34.94 30.74 30.75 32.59 LOSS-P TOTAL .0320 .0317 .0226 .0203 .024 .024 .024		PEGREF -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 PO2/\$ .9353 .9304 .9410 .9663 .9768 .9857 .9857	DEGREE  42.20  40.22  43.06  47.41  53.42  58.27  62.17  OMEGA-B  40ck  -9225  -9251  -9000  -0000  -0000	760-6 760-7 781-6 788-9 603-1 840-8 841-4 841-7 EFF-AD TOTAL -0000 -0000 -0000	938.7 956.3 979.2 1009.2 1048.1 1110.1 1110.4 11108.8 EFF-P STATIC .8150 .8420 .8846 .8911 .9051 .8621	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -349.0 -576.8 -600.9 M-1 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131	FT/SEC -636.3 -617.6 -689.0 -771.6 -984.0 -958.6 -980.6 M-2 -6003 -6193 -521 -5270 -5371 -5371 -5371	FT/SEC 572.5 592.5 592.6 616.1 683.0 774.4 865.5 955.3 976.9 M'-1 .6995 .7112 .7224 .7592 .7492 .7410	FT/SEC 600.2 617.4 637.7 697.8 788 868.6 956.3 977.9 M*-2 .8500 .8602 .9154 .9687 .9658 .9562
5 10 15 30 50 70 85 90 95 ** SPAN 5 10 15 30 50 70 85	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .83 .37 -3.21 -4,68	INCM DEGREE  1.853 INCM INCM INCM INCM INCM INCM INCM INCM	TI/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 750-2 719-8 699-1 DEV DERFE 14-00 15-99 15-86 14-72 11-81 14-06	ET/Sec 696.2 730.6 747.6 737.3 709.1 584.1 545.3 517.7 TUBEREE 52.57 48.48 45.61 38.34.11 32.64 31.72	FT/SEC 708.3 738-1 768.3 768.5 768.5 768.9 644.6 612.1 62.5 62.5 59.63 57.18 64.82 44.38 45.97	57/56 695.4 730.5 737.2 709.0 589.7 583.7 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491 1.5465 1.3861	TI/SEC 849.4 834.1 789.3 652.0 534.9 383.4 378.5 376.1 D-FAC .5551 .5249 .4962 .4562 .4562 .4562	30.0 5.4 8.8 10.3 -2.4 -2.6 OMEGA-B .1351 .1232 .0791 .0628 .0465 .0630	50.17 88.99 46.02 39.63 34.94 30.74 30.75 32.54 LOSS-P TOTAL .0320 .0356 .0217 .0226 .0208 .0208		DEGREE -21.35 -18.10 -12.82 2.24 17.36 -31.44 43.30 45.55 P02/ P01.5 .9353 .9363 .9768 .9857 .9839	DEGREE  42.20  40.22  43.06  47.41  53.42  58.27  62.17  OMEGA-B  40ck  -9225  -9251  -9000  -0000  -0000	760-6 7760-6 7781-6 788-9 803-1 849-8 841-4 841-7 EFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 938.7 956.3 979.2 1009.2 1048.1 1110.1 1110.3 1110.8 EFF-P STATIC .8284 .8120 .8420 .8	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -549.0 -576.8 -600.9 M-1 1.0131 1.0150 .9932 .9199 .8388 .6615	FT/SEC -636.3 -617.6 -689.0 -771.6 -984.0 -958.6 -980.6 M-2 -6003 -6193 -521 -5270 -5371 -5371 -5371	FT/SEC 572.5 572.5 592.6 616.1 683.0 774.4 865.5 955.3 976.9 M'-1 .6995 .7112 .7132 .7224 .7592 .7492 .7410	FT/SEC 600.2 617.4 637.7 697.8 788 868.6 956.3 977.9 M*-2 .8500 .8602 .9154 .9687 .9658 .9562
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 86	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS INCS INCS INCS INCS INCS INCS INCS	IN. 18.580 19.740 21.600 2.600 28.900 28.900 29.600 30.270 INCM DEGREE 4.80 3.99 1.64 .85 .85 .53	TI/SEC 1106-0 1113-8 1096-9 1021-9 933-5 833-7 75C-2 719-8 699-1 DEV DEREF 14-00 15-96 14-72 11-51 14-08 15-97 16-03	ET/Sec 696.2 730.6 737.3 709.2 659.6 584.1 545.3 517.7 TURN DEGREE 52.57 48.48 45.61 38.94 34.11 32.64 31.72 32.89	FT/SEC 708-3 738-1 768-5 768-5 748-6 612-1 589-3 CAMBER 0E-98EE 62-55 57-19 51-86 48-38 45-39 46-76	695.4 730.5 747.5 737.2 709.9 583.5 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491 1.5465 1.2865 1.2553	TI/SEC 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5 376.1 D-FAC .5551 .5249 .4990 .4562 .4252 .4252 .4262	30.0 30.0 30.0 5.4 8.8 10.3 -20.8 -2.6 -2.6 0MEGA-B .1351 .1232 .0791 .0865 .0630 .0781 .0895	50.17 48.99 46.02 39.63 34.94 30.74 30.75 32.59 LOSS-P TOTAL .0320 .0317 .0226 .0203 .024 .024 .024		PEGREF -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 PO2/\$ .9353 .9304 .9410 .9663 .9768 .9857 .9857	DEGREE  42.20  40.22  43.06  47.41  53.42  58.27  62.17  OMEGA-B  40ck  -9225  -9251  -9000  -0000  -0000	760-6 7760-6 7781-6 788-9 803-1 840-7-2 841-4 841-7 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	938.7 956.3 979.2 1009.2 1048.1 110.1 1103.4 1108.8 EFF-P STATIC .8284 .8150 .8420 .8846 .8911 .8621 .8374 .8252	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -438.3 -549.0 -576.8 -600.9 M-1 1.0131 1.0150 .9932 .9199 .8338 .6615 .6333	FT/SEC -630.3 -6170.6 -6170.6 -6890.6 -771.6 -989.6 -980.6 M-2 .6003 .6318 .6490 .6431 .6193 .5770 .5.31 .4730 .4472	FT/SEC 572.5 592.6 610.1 683.0 774.4 865.3 932.4 955.3 976.9 M°=1 .6995 .7112 .7138 .7162 .7224 .7509 .7492 .7410 .7395	FT/SEC 600.2 617.2 617.7 697.8 78.8 868.6 933.6 956.3 977.9 M*-2 .8094 .8270 .8500 .8802 .9154 .9658 .9562 .9579
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 86	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS INCS INCS INCS INCS INCS INCS INCS	INCM DEGREE  1.855 1.600 2.000	TI/SEC 1106-0 1113-9 1096-9 1021-9 933-5 775-2 719-8 699-1 DEV DEREF 14-00 15-86 14-72 11-01 14-08 15-7 16-03	ET/Sec 696.2 730.6 737.3 709.3 659.6 554.1 545.3 517.7 TURN DERREE 52.57 48.48 45.61 38.94 31.72 32.60 32.84	708.3 738.3 786.5 764.5 644.6 612.1 589.3 CAMBER DEGREE 62.56 59.33 57.18 45.37 46.76	2-1065 2-0270 1-2865 1-2865 1-2865 1-2865	TI/SEC 849.4 839.3 789.3 652.0 534.9 383.4 378.5 376.1 D-FAC .5551 .5249 .4962 .4562 .4562 .4562	30.0 30.0 30.0 5.4 8.8 10.3 -20.8 -2.6 -2.6 0MEGA-B .1351 .1232 .0791 .0865 .0630 .0781 .0895	50.17 48.99 46.02 39.63 34.94 30.74 30.75 32.59 LOSS-P TOTAL .0320 .0317 .0226 .0203 .024 .024 .024		EGREF -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 PO2/S .9353 .9304 .9410 .9663 .9768 .9857 .9839 .9819	DEGREE  42.20  40.22  43.06  47.41  53.42  58.27  62.17  OMEGA-B  40ck  -9225  -9251  -9000  -0000  -0000  -0000	769-6 776-7 781-6 788-9 803-1 849-8 841-4 841-7 FFF-AD -0000 -0000 -0000 -0000 -0000 -0000	938.7 956.3 979.2 1009.2 1048.1 110.1 1103.4 1108.8 EFF-P STATIC .8284 .8150 .8420 .8846 .8911 .8621 .8374 .8252	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -349.0 -576.8 -600.9 M-1 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131 1.0131	FT/SEC -637.3 -617.4 -689.0 -771.6 -989.6 -980.6 M-2 -6003 -6318 -6490 -6431 -57.3 -4730 -4730 -4730	FT/SEC 572.5 592.6 616.1 683.0 774.4 865.5 732.4 955.3 976.9 M*-1 .6995 .7138 .7162 .7224 .7249 .7492 .7492	FT/SEC 600.2 617.4 637.7 697.8 788 8633.6 956.3 977.9 M*-2 .8094 .8270 .8500 .8802 .9154 .9658 .9562 .9579 SLANT-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 86	IM 17.720 18.350 19.070 21.190 23.970 26.790 28.860 29.570 30.240 INCS INCS INCS INCS INCS INCS INCS INCS	INCM DEGREE  1.855 1.600 2.000	TI/SEC 1105-0 1113-8 1096-9 1021-9 933-5 750-2 719-8 699-1 DEGREF 14-00 15-99 15-86 14-7 11-07 14-08 15-87 16-03	ET/Sec 696.2 730.6 737.3 709.2 659.6 584.1 545.3 517.7 TURN DEGREE 52.57 48.48 45.61 38.94 34.11 32.64 31.72 32.89	708.3 738.3 786.5 764.5 644.6 612.1 589.3 CAMBER DEGREE 62.56 59.33 57.18 45.37 46.76	695.4 730.5 747.5 737.2 709.9 583.5 545.7 517.7 SOLIDTY 2.1065 2.0270 1.9434 1.7491 1.5465 1.2865 1.2553	TI/SEC 849.4 834.1 789.3 652.0 534.9 427.2 383.4 378.5 376.1 D-FAC .5551 .5249 .4990 .4562 .4252 .4252 .4262	30.0 30.0 30.0 5.4 8.8 10.3 -20.8 -2.6 -2.6 0MEGA-B .1351 .1232 .0791 .0865 .0630 .0781 .0895	50.17 48.99 46.02 39.63 34.94 30.74 30.75 32.59 LOSS-P TOTAL .0320 .0317 .0226 .0203 .024 .024 .024		EGREF -21.35 -18.10 -12.82 2.24 17.36 -31.45 40.41 43.30 45.55 PO2/S .9353 .9304 .9410 .9663 .9768 .9857 .9839 .9819	DEGREE  42.20  40.22  43.06  47.41  53.42  58.27  62.17  OMEGA-B  40ck  -9225  -9251  -9000  -0000  -0000	769-6 776-7 781-6 788-9 803-1 849-8 841-4 841-7 FFF-AD -0000 -0000 -0000 -0000 -0000 -0000	938.7 956.3 979.2 1009.2 1048.1 110.1 1103.4 1108.8 EFF-P STATIC .8284 .8150 .8420 .8846 .8911 .8621 .8374 .8252	FTZSEC 277.0 241.3 173.2 -31.0 -239.5 -438.3 -549.0 -576.8 -600.9 M-1 1.0131 1.0150 .9932 .9199 .8338 .6615 .6333	FT/SEC -637.3 -617.4 -689.0 -771.6 -989.6 -980.6 M-2 -6003 -6318 -6490 -6431 -57.3 -4730 -4730 -4730	FT/SEC 572.5 592.6 610.1 683.0 774.4 865.3 932.4 955.3 976.9 M°=1 .6995 .7112 .7138 .7162 .7224 .7509 .7492 .7410 .7395	FT/SEC 600.2 617.4 637.7 697.8 788 8633.6 956.3 977.9 M*-2 .8094 .8270 .8500 .8802 .9154 .9658 .9562 .9579 SLANT-2

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LIA-1 .IA-2 V-1 y-2 y-1 year 1 VO-1
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      13.120 16.030 606.5 1167.1 606.5 711.6
14.100 16.790 619.6 1146.4 619.6 709.5
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      15.170 17.584 633.2 1134.8 633.2 712.6
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                                                               .00 49.80 37.69 -21.17 800.4 765.7 -489.5 276.7
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       18.280 19.910 667.1 987.1 667.1 710.8
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                                                               .00 43.08 41.45 -3.33 890.6 714.6 -589.8 42.2 589.8 642.4
      22.190 73.090 693.6 H71.1 693.6 66H.8
                                                               .00 39.81 45.88 15.60 997.1 696.6 -716.0 -187.0 .00 35.48 50.02 32.98 1089.7 743.0 -835.0 -404.0
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      25.880 23.260 699.8 763.2 699.8 621.3
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      28.450 28.613 694.4 671.5 694.4 542.7
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                                                               .00 36.10 52.89 44.19 1151.0 757.4 -917.9 -527.6
                                                                                                                   917.9 923.1
                                                               .00 37.68 53.83 47.96 1171.8 754.1 -946.0 -559.5
.00 36.81 54.70 50.86 1191.9 758.8 -972.8 -588.6
      29.320 29.410 691.4 637.6 691.4 504.8
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      30-150 30-180 680-8 614-5 688-8 478-8
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                          TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1 M-2
              INCH DEV
                                                                                                                    M*-1
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SPAN DEGREE DEGREE DEGREE DEGREE
                                                             TOTAL PROFILE POI TOTAL TOTAL SHOCK
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                      4.20
                                                                    .0247 1.6040
                                                                                 .9280 .9231
                                                                                              .0000
                                                                                                      .5747 1.0556 .7150 .7325
                     5.70
                                                                                  .9472
                                                                                               .0000
       -4.61
               1.68
                           58.86 62.92 2.1565
                                               .3356
                                                      .0844 .0102 .0182 1.6059
                                                                                        .9436
                                                                                                      .5883 1.011%
                                                                                                                   •7459  •7007
                           44.79 53.27 1.9033
       -3.76
               1.90 10.38
                                                .4077
                                                       • 0291
                                                             •0076
                                                                   .0076 1.5685 .9754
                                                                                        .9738
                                                                                               .0000
                                                                                                      .6217 .8911
                                                                                                                   .8330 .6450
  50
       ニン・71
                            30.27 39.15 1.6888
                     11017
                                                <u>. 47</u>11
                                                       -0487 -0139
                                                                    .0139 1.5164 .9510
                                                                                                       6479 .7758
                                                                                                                          <u> 6203</u>
                                                                                         -9481
                                                                                                2000
                                                                                                                   49372
  70
       -1.15
                                  26.92 1.5337
               3.00
                     12.82
                           17.C3
                                                .4515
                                                       • 0671
                                                             .0183
                                                                    .0160 1.4398
                                                                                               .0085
                                                                                  ,9163
                                                                                         .9119
                                                                                                      .6523 .6746
                                                                                                                   1.0241
                                                                                                                           .6567
        -.39
                            8.70 19.75 1.4420
  85
               3.24 14.29
                                               .4614
                                                      •1460
                                                             • 0363
                                                                    .0326 1.3618
                                                                                 .7963
                                                                                                      .6462 .5884 1.0796
                                                                                        .7872
                                                                                               .0144
                                                                                                                           :437
                                                      .1855
                                                             .0439 .0399 1.3346
                                                                                                                           sea1
        -.29
               3.20 15.67
                                 18.33 1.4148
                                                                                 .7357
                            5.88
                                               .4741
                                                                                         .7247 .0166
                                                                                                      .6435 .5565 1.0967
               3.01 16.71
                            3.84 17.48 1.3890 .4798
                                                      .2110
                                                             ·0480 .0436 1.5182 .6942
                                                                                        .6820 .0191 .6413 .5347 1.1127 .660%
             NCOH-1 MCOR-1 MC/A-1 TO2/ PO2/ FFF-AD FFF-P
                                                                                                    STA-1 STA-2 SLANT-1 SLANT-2
             RPM LBM/SEC LBM/SEC TO1 PO1
                                                                                                                 DEGREE DEGREE
                          SOFT
              7394 185.73 41.88 1.1313 1.4786 90.076 90.67
                                                                                                             6.0 86.05 95.02
STATOR
                                               V0=1 V0=2 U=1 U=2 8!=1 3!=2 V!=1 V!=2 V0!=1 V0!=2
       17.720 18.580 1088. 682.6 697.8 681.4 835.6 -40.2 50.13 -3.38 -20.71 43.20 746.0 934.6 263.8 -639.7 571.7 599.5 18.350 19.110 1096.7 714.8 723.4 713.6 824.2 -42.3 48.73 -3.39 -17.79 42.72 759.9 971.2 232.2 -658.9 592.1 616.6
                                         734.5 779.7 -43.4 46.29 -3.40 -12.46 42.97 763.8 998.1 164.4 -680.3 615.3 636.9
       19.070 19.740 1078.7 731.6 745.0
                                                                                        779.4 1000.3 -37.4 -682.7 682.1 696.9
793.0 1040.9 -235.9 -764.8 773.4 780.8
      21.140 21.600 1009. 731.0 776.5 730.9 644.7
                                                       14.3 39.66 1.12 2.73 43.03 779.4 1000.3 -37.4 -682.7
                                                537.4
                                                             35.41
                                                                     1.31 17.32 47.29
                                         706.0
      23.970 24.200 927.2
                           716.2
                                  755.5
                                                        16ail
                                                                                         829.4 1033.2 -429.7 -801.2 864.4 867.3
                                                                     5.60 31.24 50.71
      26.790 26.660 630.5 656.7 707.7
                                         647.5 434.6
                                                        66.1
                                                             31.54
  70
                                                        6.1 31.67
                                                                      .61 40.31 58.04
                                                                                         833.9 1092.1 -539.2 -926.3 931.2 932.4
       28.860 28.900 746.8 577.9 635.6 577.8 392.0
                                                                      .61 43.26 60.39 828.2 1092.2 -567.3 -949.3 954.1 955.0
       29.570 29.600 716.4 539.5 602.9 539.5 386.8
                                                         5.7 32.70
  90
       30.240 30.270 696.6 512.2 580.3 512.2 384.2
                                                                      .61 45.54 62.19 828.6 1098.0 -591.5 -971.2
                                                                                                                   975.7 976.6
                                                         5.4 33.51
       INCS INCM DEV TURE CARRER SOLIDITY DEFAC OMEGA-B LOSS-P LOSS-P POZZOMEGA-B EFF-AD EFF-P
                                                                                                      M-1 M-2
                                                                                                                    M'-1 M'-2
% SPAN
                                                             TOTAL PROFILE PO1 SHOCK
                                                                                      TOTAL STATIC
     DEGREE DEGREE DEGREE DEGREE DEGREE
               4.44 13.12 53.51 62.55 2.1068 .5598 .1324 .0314 .0314 .9381 .0000
                                                                                         .0000 .8299
                                                                                                             .5884
                                                                                                                    .6843 .8057
          .47
                                                                                                      .9967 .6177
                                                      .1437
                                                                     .0295 .9322 .0000
                                                                                         .0000 .8153
                                                                                                                    .6934 .8393
                           52.12 59.62 2.0274
                                                .5395
               5.08
                    12.53
                                                             • 0354
                                                                    .0306 .9450 .0000
                                                                                         .0000 .8471
                                                                                                      .9755 .6346
                                                                                                                    .6970 .8657
                           49.69 57.13 1.9439 .5149 .1193 .0306
        -.12
               4.23 12.05
                                                                     .0188 .9724 .0000
                                                                                         ·0000 ·9028
                                                                                                      .9088 .6377
                                                                                                                    .7071 .8725
                           38.55 51.85 1.7494
                                                      .0659
                                                             .0188
  30
               1.70 15.15
                                                •4523
        -3.14
                                                                                                       8272
                                                                                                              .6165
                                                                                                                    7125
                                                                                                                           -9086
  50
                                   44.82 1.5464
                                                 4189
                                                       .053A
                                                              -0174
                                                                     0174
                                                                           _9803 .0000
                                                                                         .0000
                                                                                               9056
       -4.19
               1.34 12.00
                                                                     .0165
                                                                           .9860 .0000
                                                                                         .0000 .9053
                                                                                                       .7368
                                                                                                             .5737
                                                                                                                    .7396
                                                                                                                           -9026
                                                .3698
                                                       .0459
                                                              .0165
  70
                .11
                     18.5
                            25.94
                                  44.34 1.3061
        -6.02
                                                                                                      .6577
                                                                                                             .5019
                                                                           .9833 .0000
                                                                                         .0000 .8578
                                                                                                                    .7363
                                                                                                                           .9485
               1.45 15.67
                           31.06 45.34 1.2865 .4268
                                                      .0660
                                                             • 0257
                                                                     .0257
        -5.06
                                                .4536
                                                       •ე8ე9
                                                                     .0322
                                                                           .9810 .0000
                                                                                         ·0000 ·8346
                                                                                                       .6295
                                                                                                             .4669
                                                                                                                    .7284
                                                                                                                           .9450
                     16.32 32.09 45.97 1.2553
                                                             .0322
        -4.12
               2.49
                                                             .0372 .0372 .9797 .0000
                                                                                         .0000 .8241
                                                                                                      .6104
                                                                                                             .4419
                                                                                                                    .7268
                                                                                                                          .9471
               3.60 16.94 32.90 46.76 1.2271 .4856
                                                       .0912
        -3.68
                                                                                                    STA-1 STA-2 SLANT-1 SLANT-2
             NCOR-1 NCOR-1 NC/A-1 TO2/ PO2/ EFF-AD EFF-F
                                                                                                                 DEGREE DEGREE
              RPM LBM/SEC LBM/SEC TO1
                                       F01
                          SGFT
              7394 185-75 41.06 1.1313 1.4417 83.940 84.81
                                                                                                     11.0 12.0 9..00 90.00
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Blade-Element and Overall Performance with Stator-Hub Slit Suction

16(7)	OIL						/(	,		•								
% SPAN	DIA-1	DIA-2	V-1	V=2	VM-1	VM-2	V0-1	V0-2	8-1 0-6855	B-2	A *=1	e'-2	V'-1	V1-2	Y0'-1	V0 -2	U-1	U-2 FT/SEC
5		16.030	597.5	1128.7	507.5	677.7	<del>. المحدد</del> ا					-29.62						
10		16.790		1105.5			+0		•00			-26.13			-455.0			
15		17.580			623.3	682.9	• 0	819.1	•00	50.16		-20.19			-489.5			
30		19.910			656.0		•0								-589.9			
50		23.090			683.7								990.2	666.8	-716.0			
70		26.260 28.610		772.1 694.2									1086.3		-835.1			
85 90		29.410						. T			52.93 53.83		1150.5 1172.0		-918.0 -946.1			
90 95		30.180		632.3	689.9					41.69			1192.7		-972.9			
30				0.00			• •			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	U.,					-55.		
	INCS	INCM	DEV			SOLIDTY	D-ITAC	OMEGA-B				EFF-P			W-1	4-2	M'-1	M+-2
% SPAN		,							TOTAL I	PROFILE	P01	TOTAL						
5 10	-5.68	1.24				2.4332					1.5395					1.0396		
15	-4.79 -4.17	1.87 2.13		62,83 58,33		2,285 <b>9</b> 2,1573	.2819				1.5775	9203	9150 9392	+0000		1.0127		
30	-3.28	2.40		44.61		1.9046				0100	1.5820	9430 9687	9667	•0000 •0 <del>0</del> 00				6114
50	-2.32	2.65		30.26		1.6900	.4972			.0132	1.5215	9538	9510				924	
70	-1.01					1.5343					1,4888						1.015	
85	39		12.30	10.72		1.4420				.0251	1.4281	.8548		•0145	•6460		1.076	
90	31	3.19				1.4148					1.3978	7905					1.095	
95	37	2.99	15.36	5.14	17.48	1.3890	5171	.1936	.0453	.0408	1.3786	• 7425	•7306	•0191	.6426	.5482	1.112	7 .6307
		NCOR-1	wcoR=1	4C/A-1	T02/	P02/	FEF-AD	EFF-P							STA-1 S	TA-2 9	SLANT-1	SLANT-2
				LBM/SEC		POI	- 8											DEGREE
				SOFT														
		7395.	184.47	41.59	1.1345	1.4980	91.037	91.59							5.0	6.0	86.05	95.02
CITIA	TOR																	
SIA	IUK																	
	DIA-1	DIA-2	V-1	V=2	VM-1	VM-2	V0-1	V0-2	B=1	8-2	B + - 1		V'-1	V*-2	V0 -1	V0+-2	_ U-1	U-2
% SPAN	2N :	[NI		FT/SEC		ET/SEC						DEGREE						
5						626.2			51.45		-20.57				244.0			
10 15		19-110					800.8 756.7	4.8			-17.24		704.3 712.2		208.7	-620.0		
30		19.740					635.6			.38	-11.47 3.63			970.7	-46.5			
50		24.200	900.1				540.1			1.99	17.91				-233.4			
70	26.790						461.7			83	29.84				-402.B			
85	28.860	28.900	772.9	587.9			422.9	6.1	33,18	.62	38.17		823.1		-508.4			
96		29,600	741.5			550.7			34.45	1.12					-534.9		954.2	955.1
95	30.240	30.270	719.3	524.7	584.3	524.6	419.5	8.6	35.68	• 94	43.59	<b>01.55</b>	806.8	1101.2	-556-3	-968.2	975.4	976.8
	INCS	INCM	DEV	TUDN	CAMBED	SOLIDTY	0-540	04504=D	I ACCED	1 ASS-0	DA2/	OMEGA-B	ree-An	555-D	M-1	M-2	M*-1	M1-2
% SPAN	DEGREE (	FGREE I	SEREF !	DEGREE	DEGDEE	3061011	D-FAC	UMEUA-D		PROFILE		HOCK			W-1	M-E	,	H C
5	1.79					2.1075	.5869	.1287		0305				.8400	,9458	.5388	.6314	.7631
10	1,98	6.24	16.36	49,57	59,59	2.0291	,5563	.1364	,0336	,0336	.9401	+0000	.0000			.5648		
15	1.12	5.46	16.90			1.9462	.5304			.0310	.9482		•0000			.5783		
30	=1.57	3.26	14.37			1.7518	-4807			.0159			•0000			-5903		
50 70	-2.70		12.79 			1.5476	.4454 <del>.4204</del>	•0401 	.0130	.013n	.9861 <del>.9866</del>		•0000	•9304 •9123	.8030 .7454	•5779 5649		
75 85	-3.54	2.96	15.67			1.2865	4486			.0280			•0000			-5089		
90	-2.37	4.23	16.83			1.2553	.4766		.0329	-0329			•0000			4749		
95		5.25	17.26			1.2271	5033			.0349			.0000	.8395		.4507		
	-1.51	715																
	-1.51		_			_												
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P							STA-1 S		LANT-1	SLANT-2
			WCOR-1	WC/A-1 LBM/SEC	T02/	_	EFF-AD	EFF-P							STA-1 S		LANT-1	SLANT-2 DEGREE
		NCOR-1	WCOR-1	WC/A-1 LBM/SEC SGFT	T02/	P02/									STA-1 S		LANT-1 EGREE	

KO I	JR						100,	0 01 2	001611.	poou								
	DTA-1	DIA-2	V-1	v=2	VM=1	VM-2	V0-1	V0-2	8-1	B=2	8*-1	81-2	V*-1	V'-2	V0*=1	V01-2	U=1	U-2
SPAN	1N					FT/SEC					EGREE							EI/SEC
5		16.03	592.6	1109.7	592,6	661.0						-29,53		759.7	-423,1			
10		16.790		1087+7			•0		•00	B2+64		-26.07			-454,7			
15		17.580		1049.2			٠Ú		•00	50.56		-20.03			-489,2			
30 50		23.090		839.2				<del>-</del>		45.41	42.17				-589.4 -715.5			
70		23.070 2 <b>6.26</b> 0				622.7	•0		•00	42.06	46.49		1084.1		-834.5			
85		28.610							.00	38.67	52.92		1149.8		-917.4			
90		29.410					•0		.00	40.72	53.79		1171.8		-945.4			
95	30.150	30.180	691.0	641.4					.00	42.67	54.59		1192.8		-972.2			
% SPAN	INCS	INCH	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	Loss-P	P02/	EFF-P	EFF-AD	OMEGA-B	H-1	M-2	M*-1	M5
5	DEGREE -5.47						.2332	.2142		PROFILE			8772		F		49.3	.6979
10	=4.87	2.09				2,4335 2,2863					1.5327				•5469 •5597			
15	-3.94	2.36				2.1577			.0194		1.5751	.9440						
30	-3.04	2,65				1.9053	.4524		.0085		1.5542						8148	
50	-2.14					1.6906	.5121	.0403	.0114		1.5270							
70						1.5346				-0071	1.5070	9592			6447			-6218
85	41	3.27	11.40			1.4421	4961	.0892	.0232	.0195	1.4626	.8881	.8820	+0144	.6459		1.0739	
90	35	3.16	13-10			1.4148	5159	.1375	.0341	.0300	1.4327	.8251	.8160				1.0938	
95	43	2 • 94	14.62	5,82	17.48	1.3891	.5311	.1755	.0416	.0371	1.412	.7~45	•7633	•0188	.6438	•5555	1.1122	.6199
			-00-															
				WC/A-1		P02/	EFE-AD	ELL-L	···						57A-1 5			SLANT-2
		HPM C	BW/ Dea	<del>LUM/SLC</del> SQFT	-101	P01											FORES	DEGREE
		7300	183.78		1.1355	1.5099	92.189	92.74							5.0	6.0	86.05	95.02
		,000		, ,,				,								-10		
STAT	IOR																	
	DTA-1	DIA-2	V-1	_ V=2	VM-1	VM-2	vo-1	vo-2		B-2		B'-2			V0'-1		U <b>-1</b>	U-2
% SPAN	DIA-1	IN	TYSEC.	ET/SEC	FT/SEC	FT/SEC-	T/SEC-	T/SEC (	EGRÉE C	EGREE C	ECREE !	EGREE 1	T/SEC !	ET/SEC #	T/SEC_I	TISEC	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17,720	18,580	1020.4	602.7	626.1	FT/SEC-1 601,5	805,7	-34.4	52,15	-3.31	<b>EGREE</b> ( -20,51	16.49	T/SEC   668,6	ET/SEC # 873.7	7/SEC_1 234.3	-633.5	<u>FT/SEC</u> _  571.4	599.1
% SPAN 5 10	DIA-1 IN 17.720 18.350	18,580 19,110	1020.4 1023.6	602.7 602.7 631.0	626.1 648.2	FT/SEC + 601.5 630.9	805,7 792,2	T/SEC ( -34,4 1.4	52,15 50.71	-3.31 -11	EGREE ( -20,51 -17,19	46,49 44,26	668.6 678.6	873.7 881.0	7/SEC 1 234.3 200.5	-633,5 -614,8	571.4 591.7	599.1 616.2
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	18,580 19:110 19:740	1020.4 1023.6 1006.4	602.7 602.7 631.0 642.1	626.1 648.2 672.4	FT/SEC-F 601.5 630.9 641.7	7/SEC 805,7 792.2 748.5	-34,4 1.4 21.1	52,15 50.71 48.05	-3.31 -11 1.88	-20.51 -17.19 -11.25	46.49 44.26 44.80	7/SEC   668,6 678,6 686.3	873.7 881.0 889.2	7/SEC 1 234.3 200.5 133.6	7/SEC -633.5 -614.8 -615.5	571.4 591.7 614.9	599.1 616.2 636.5
% SPAN 5 10 15 30	DIA-1 17.720 18.350 19.670 21.140	18,580 19:110 19:740 21:600	1020.4 1023.6 1006.4 947.9	602.7 631.0 642.1 660.7	626.1 648.2 672.4 705.8	601.5 630.9 641.7 660.7	7/SEC 1 805,7 792.2 748.5 632.3	-34,4 -34,4 1.4 21.1 6.6	52,15 50.71 48.05 41.84	-3.31 -11 1.88 .57	20.51 -20.51 -17.19 -11.25 3.97	46.49 44.26 44.26 43.80 46.23	7/SEC 1 668.6 678.6 686.3 709.0	873.7 881.0 889.2 955.3	7/SEC   234.3 200.5 133.6 -49.4	-633.5 -614.8 -615.5 -689.9	571.4 571.4 591.7 614.9 681.7	599.1 616.2 636.5 696.5
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	1020.4 1023.6 1006.4 947.3 886.1	602.7 631.0 642.1 660.7 648.2	626.1 648.2 672.4 705.8 701.2	601.5 630.9 641.7 660.7 647.9	748-5 748-5 632-3 541-5	-34.4 1.4 21.1 6.6 20.0	52,15 50.71 48.05 41.84 37.66	-3.31 -11 1.88 -57 1.77	20,51 -20,51 -17.19 -11.25 -3.97 18.20	46.49 44.26 43.80 46.23 49.55	668.6 678.6 686.3 709.0 739.5	873.7 881.0 889.2 955.3 999.1	234.3 200.5 133.6 -49.4 -231.4	-633,5 -614,8 -615,5 -689,9 -760,4	571.4 571.4 591.7 614.9 681.7 772.9	599.1 616.2 636.5 696.5 780.3
% SPAN 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200	1020.4 1023.6 1006.4 947.3 886.1	602.7 631.0 642.1 660.7 648.2 641.8	626.1 648.2 672.4 705.8 701.2	FT/SEC   601.5 630.9 641.7 660.7 647.9	775EC 805.7 792.2 748.5 632.3 541.5	-34.4 1.4 21.1 6.6 20.0	52,15 50.71 48.05 41.84 37.66	-3.31 .11 1.88 .57 1.77	20,51 -20,51 -17.19 -11.25 -3.97 18.20 -29.66	46.49 44.26 43.80 46.23 49.55 53.23	7/SEC   668.6 678.6 686.3 709.0 739.5 798.3	873.7 881.0 889.2 955.3 999.1	234.3 200.5 133.6 -49.4 -231.4	T/SEC -633.5 -614.8 -615.5 -689.9 -760.4 -859.1	571.4 571.4 591.7 614.9 681.7 772.9 863.8	599.1 616.2 636.5 696.5 780.3 866.8
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.670 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200	1020.4 1023.6 1006.4 947.3 886.1	602.7 631.0 642.1 660.7 648.2 641.8 598.7	626.1 648.2 672.4 705.8 701.2 692.8 652.3	FT/SEC   601.5 630.9 641.7 660.7 647.9 641.8 598.6	748-5 748-5 632-3 541-5	-34.4 1.4 21.1 6.6 20.0	52,15 50.71 48.05 41.84 37.66 34.08	-3.31 -11 1.88 -57 1.77	20,51 -20,51 -17.19 -11.25 -3.97 18.20	46.49 44.26 43.80 46.23 49.55	7/SEC   668.6 678.6 686.3 709.0 739.5 798.3 819.3	873.7 881.0 889.2 955.3 999.1	234.3 200.5 133.6 -49.4 -231.4 -395.0	T/SEC -633.5 -614.8 -615.5 -689.9 -760.4 -859.1	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6	FI/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19:110 19:740 21:600 24:200 26:880 28:900	1020.4 1023.6 1006.4 947.3 886.1 836.6 784.2	602.7 631.0 642.1 660.7 648.2 641.8 598.7 561.5	626.1 648.2 672.4 705.8 701.2 692.8 652.3 618.3	FT/SEC   601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3	775EC   805,7 792.2 748.5 632.3 541.5 468.8 435.2	-34.4 1.4 21.1 6.6 20.0 7.6 7.8	52,15 50.71 48.05 41.84 37.66	23.31 -3.31 -11 1.88 -57 1.77 -68 -76	20,51 -20,51 -17,19 -11,25 -3,97 18,20 -29,46 -37,22	46.49 44.26 43.80 46.23 49.55 53.23 57.07	7/SEC 668.6 678.6 686.3 709.0 739.5 798.3 819.3 808.7	873.7 881.0 889.2 955.3 999.1 1072.6	7/SEC 1 234.3 200.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9	7/SEC -633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5	599.1 616.2 636.5 696.5 780.3 866.8 931.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19:110 19:740 21:600 24:200 26:890 28:900 30:270	1020.4 1023.6 1023.6 1006.4 947.3 886.1 836.6 784.2 754.7	FT/SEC 602.7 631.0 642.1 660.7 648.2 641.8 598.7 561.5 534.7	626.1 648.2 672.4 705.8 701.2 692.8 652.3 618.1	601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3	792-2 792-2 748-5 632-3 541-5 468-8 432-5 433-7	7.6 20.0 7.6 11.0 20.0 7.6 11.0 6.3	52,15 50,71 48.05 41.84 37.66 34.08 33.72 34.99 36.32	256REE 0 -3.31 .11 1.88 .57 1.77 .68 .76 1.11 .67	EGREE 1 -20,51 -17,19 -11,25 -3,97 -18,20 -29,66 -37,22 -40,13 -42,53	96.49 44.26 43.80 46.23 49.53 57.07 59.24 61.13	668.6 678.6 686.3 709.0 739.5 798.3 819.3 800.8	873.7 881.0 889.2 955.3 999.1 1072.6 11018.0 1107.4	234.3 200.5 133.6 -49.4 -231.4 -395.4 -520.9 -541.4	7.5EC -633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1	F1/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 3N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	18.580 19:110 19:740 21:600 24:200 26:880 28:900 29:600 30:270	1020.4 1023.6 1006.4 947.3 886.1 936.6 784.2 754.7 732.3	FT/SEC 602.7 631.0 642.1 660.7 648.2 641.8 598.7 561.5 534.7	626.1 648.2 672.4 705.8 701.2 692.8 652.3 618.3 590.1	601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3 534.7	805.7 792.2 748.5 632.3 541.5 468.8 435.5 433.7	1.4 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3	52,15 50,71 48.05 41.84 37.66 34.08 33.72 34.99 36.32 LOSS-P	256REE 0 -3.31 .11 1.88 .57 1.77 .68 .76 .11 .67	EGREE 1 -20.51 -17.19 -11.25 3.97 18.20 29.66 37.22 40.13 42.53	46.49 44.26 43.80 46.23 49.55 53.23 57.07 61.13	668.6 678.6 686.3 709.0 739.5 798.3 819.3 808.7 800.8	873.7 881.0 889.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4	7/SEC 1 234.3 200.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9	7/SEC -633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5	599.1 616.2 636.5 696.5 780.3 866.8 931.9
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	18.580 19.110 19.740 24.200 26.880 28.900 29.600 30.270 INCM	755C 1020.4 1023.6 1006.4 947.8 886.1 836.6 784.2 754.7 732.3	FT/SEC 602.7 631.0 642.1 660.7 648.2 598.7 561.5 534.7 TURN DEGREE	626.1 648.2 672.4 705.8 701.2 692.8 652.3 618.3 590.1 CAMBER	601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3 534.7	805.7 792.2 748.5 632.3 541.5 468.8 435.2 432.5 433.7	7.8 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3	52,15 50,71 48.05 41.84 37.66 34.08 33.72 34.99 36.32 LOSS-P	-3.31 -11 1.88 -57 1.77 -68 -76 1.11 -67 LOSS-P	20,51 -17.19 -17.19 -11.25 3.97 18.20 29.66 37.22 40.13 42.53 P02/C	96.49 44.26 43.80 46.23 49.55 53.23 57.07 59.24 61.13	739.5 799.3 819.3 808.7 800.8	873.7 881.0 889.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-P	234.3 200.5 133.6 -491.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1	-633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1	FY/SEC 599.1 616.5 636.5 696.5 780.3 866.8 931.9 954.5 976.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE (2.50	18.580 19:110 19:740 21:600 24:200 26:880 28:900 30:270 INCM DEGREE 6:46	775EC 1020.4 1023.6 1006.4 947.3 886.1 784.2 754.7 732.3 DEV	602.7 631.0 642.1 648.2 648.2 641.8 598.7 534.7 TURN DEGREE 55.45	626.1 648.2 672.8 705.8 701.2 692.8 652.3 590.1 CAMBER DEGREE 62.54	601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3 534.7	805.7 792.5 632.3 541.5 468.8 435.2 433.7 D-FAC (	-34.4 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3 0MEGA-B	52,15 50,71 48.05 41.84 37.66 34.08 33.72 34.72 36.32 LOSS-P TOTAL 5	-3.31 -11 1.88 -57 1.77 -68 -76 1.11 -67 LOSS-P PROFILE -0299	20,51 =17.19 =17.19 -11.25 3.97 18.20 29.36 37.22 40.13 42.53 P02/(	46.49 44.26 43.80 46.23 57.07 59.24 61.13 0MEGA-85	668.6 678.6 678.3 709.0 739.5 798.3 819.3 808.7 800.8	873.7 881.0 889.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-P TATIC .8434	234.3 200.5 133.6 -231.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1	-633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 H-2	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M°-1	FY/SEC 599.1 616.5 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*~2
% SPAN 5 10 15 30 50 50 95 95 \$\$ SPAN 5 10	DIA-1 17,720 18,350 19,670 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 2,50 2,72	18.580 19:110 19:740 21:600 24:200 26:880 28:900 30:270 INCM EGREE 6:46 6:98	1020.4 1023.4 1023.6 1006.4 947.9 886.1 	57.5EC 602.7 631.0 642.1 648.2 641.8 598.7 534.7 TURN DEGREE 55.60	626.1 648.2 672.4 705.8 701.2 692.8 652.3 618.1 CAMBER DEGREE 59.57	601.5 630.9 641.7 660.7 647.9 641.8 598.6 561.3 534.7 50LIOTY 2.1077 2.0298	805.7 792.2 748.5 541.5 468.8 435.2 433.7 D-FAC 0	-34.4 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3 0MEGA-B .1264 .1380	52,15 50.71 44.05 41.84 37.66 34.08 33.72 34.99 36.32 LOSS-P TOTAL 0340	25.31 -3.31 -11 1.88 -57 1.77 -68 -76 1.11 -67 LOSS-P PROFILE -029 -0340	20,51 =17.19 =11.25 3.97 18.20 29.66 37.22 40.13 42.53 P02/0 P01.55 .9454	46.49 44.80 43.80 49.55 53.23 57.07 59.24 61.13 0MEGA-BF	668.6 678.6 678.6 709.0 739.5 798.3 819.3 808.7 800.8 FF-AD 10TAL .0000	873.7 881.0 889.2 955.3 999.1 1072.6 1101.2 11098.0 1107.4 EFF-P TATIC .8434 .8300	234.3 203.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1	-633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1 -94.1 -969.8 M-2 .5171 .5424	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1	FY/SEC 599,1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*~2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17,720 18,350 19,670 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE ( 2,50 2,72 1,88	18.580 19:110 19:740 21:600 24:200 26:880 28:900 29:600 30:270 INCM 6:46 6:46 6:46	-T/SEC 1020.4 1020.4 1020.4 1020.4 1020.4 947.3 886.1 836.2 754.7 732.3 DEV CEREE 13.19 16.03	602.7 631.0 642.1 648.2 648.2 641.8 598.7 561.5 534.7 TURN E 55.45 50.45 64.17	626.1 626.1 626.8 705.8 701.2 692.3 618.3 590.1 CAMBER 62.55 59.59	601.5 630.9 641.7 661.7 647.9 647.9 641.8 598.6 561.3 534.7 50LIDTY 2.1077 2.0298 1.9473	805.7 792.5 632.3 541.5 468.2 433.7 D-FAC ( 6004 .5441	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1264 .1264	52,15 50.15 41.84 37.66 33.72 34.99 36.32 LOSS-P TOTAL .0299 .0340	-3.31 11.88 .57 1.77 .68 .76 1.11 .67 LOSS-P PROFILE .0299 .0340	20.51 -20.51 -17.19 -17.19 -3.97 -18.20 -29.66 -40.13 -42.53 -94.55 -94.56 -94.56 -94.77	46.49 44.26 43.80 46.23 49.55 53.23 57.07 59.24 61.13 MEGA-8FIDCK .00CU	668.6 678.6 678.6 678.6 686.3 709.0 739.5 819.3 808.7 800.8 FF-AD 10000 10000	873.7 8810.0 889.2 955.3 999.1 1072.4 1101.2 1098.0 1107.4 EFF-P TATIC .8434 .8300 .8398	234.3 204.3 200.5 133.6 -49.4 -231.4 -395.4 -520.9 -541.4 M-1 .9226 .9249	7/SEC -633.5 -613.5 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 -5171 -5424 -5532	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'~2 .7496 .7572 .7661
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 17,720 18,350 19,670 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 2,50 2,72	18.580 19:110 19:740 21:600 24:200 26:880 28:900 30:270 INCM EGREE 6:46 6:98	1020.4 1023.4 1023.6 1006.4 947.9 886.1 	57.5EC 602.7 631.0 642.7 648.8 598.7 5534.7 TURN 55.45 55.45 50.617 41.26	626.1 626.1 626.8 705.8 701.2 692.3 692.3 590.1 CAMBER 62.54 59.58 59.58	601.5 630.9 641.7 647.9 647.9 641.8 598.6 561.3 534.7 50LIDTY 2.0298 1.9473 1.7529	805.7 792.5 632.3 541.5 445.2 432.5 433.7 D-FAC 6004 .5699 .54889	-34.4 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3 0MEGA-B .1264 .1380	52,15 50,71 41,84 37,66 34,98 33,72 34,99 36,32 LOSS-P TOTAL 0299 0340 0158	25.31 -3.31 -11 1.88 -57 1.77 -68 -76 1.11 -67 LOSS-P PROFILE -029 -0340	20,51 -17-18-20 -11-25 -18-20 -11-25 -3-97 -18-20 -29-42 -40-13 -42-53 -94-53 -94-65 -94-65 -94-79-2	46.49 44.80 43.80 49.55 53.23 57.07 59.24 61.13 0MEGA-BF	668.6 678.6 678.6 678.6 678.6 678.6 739.5 798.3 819.3 808.7 800.8 FF-AD 107AL 10000 10000 10000	873.7 881.0 889.2 955.3 999.1 1072.6 1101.2 11098.0 1107.4 EFF-P TATIC .8434 .8300	234.3 203.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1	-633.5 -614.8 -615.5 -689.9 -760.4 -859.1 -924.1 -94.1 -969.8 M-2 .5171 .5424	571.4 571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*-2 .7496 .7572 .7661 .8280
% SPAN 5 10 15 30 50 70 85 90 95 2 SPAN 5 10	DIA-1 17,720 18,350 19,070 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 2,50 2,72 1,88 -77	18,580 19,110 19,740 21,600 24,200 26,890 29,600 30,270 INCM 6,46 6,98 4,05	-T/SEC 1020.4 1020.4 1020.6 1006.4 947.3 886.1 -34.6 754.7 732.3 DEV 	602.07 631.00 642.17 648.28 698.75 648.28 5961.7 561.57 TURRE.45 550.67 441.90	626.1 626.2 642.4 705.8 701.2 652.3 618.3 590.1 CAMBER 62.54 59.57 57.03 51.79	601.5 630.9 641.7 661.7 647.9 647.9 641.8 598.6 561.3 534.7 50LIDTY 2.1077 2.0298 1.9473	805.7 792.5 632.3 541.5 468.2 433.7 D-FAC ( 6004 .5441	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1264 .1380 .1264	52,15 50,15 40,05 41,84 37,68 33,72 34,99 36,32 LOSS-P TOTAL 0340 0324 0153	-3.31 11.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0299 .0340 0324 .0158	20.51 -20.51 -17.19 -17.19 -3.97 -18.20 -29.66 -40.13 -42.53 -94.55 -94.56 -94.56 -94.77	46.49 44.49 43.80 46.23 49.53 53.23 57.07 59.24 61.13 MEGA-8F NOCK .00CU .00CU	668.6 678.6 678.6 678.6 686.3 709.0 739.5 819.3 808.7 800.8 FF-AD 10000 10000	813.7 881.7 881.7 881.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-C .8434 .8300 .8398 .9168	234.3 200.5 133.6 -49.4 -231.4 -395.4 -520.9 -541.4 M-1 .9226 .9219 .9040 .8492	-633.5 -633.5 -613.5 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 .5171 .5424 .5532 .5727	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M°-1 .6063 .6145 .6202 .6374	FY/SEC 599,1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'-2 .7496 .7572 .7661 .8280 .8664
% SPAN 5 10 15 30 50 95 2 SPAN 5 10 15 30 50 50 50	DIA-1 IN 17.720 18.350 19.670 21.140 23.970 26.780 28.860 29.570 30.240 INCS ECREE 2.50 2.72 1.88 1.88	18.500 19.110 19.110 21.600 24.200 28.900 28.900 30.270 INCM EGREE 6.46 6.98 6.22 4.05 3.064	-T/SEC 1020-4 1020-6 1020-6 947-9 886-1 -754-7 732-3 DEV DECRES 16-06 17-32 14-55 14-55	602.07 631.00 642.17 648.28 698.75 648.28 5961.7 561.57 TURRE.45 550.67 441.90	626.1 626.1 642.4 705.2 672.3 618.3 618.3 590.1 CAMBER 62.57 57.03 51.73 44.2	601.5 630.9 641.7 660.7 647.9 647.9 598.6 561.3 534.7 50LIDTY 2.1077 2.0298 1.9473 1.5462	805.7 792.5 632.3 541.5 468.2 433.7 D-FAC ( 6004 .5441 .4889 .4574 .4482	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1254 .1380 .1264 .0552	52.15 50.15 41.84 37.66 34.99 36.32 LOSS-P TOTAL 0299 .0324 .0158	-3.31 1.88 .57 1.77 .76 1.11 .67 LOSSELE .0299 .0340 .0324 .0158 .0158	20,51 -17-19 -17-19 -13-97 -18-20 -37-22 -40-13 -42-53 -94-14 -94-15 -94-14 -94	15-00-000000000000000000000000000000000	668.6 678.6 686.3 709.0 739.5 798.3 819.3 808.7 800.8 FF-AL .0000 .0000 .0000	813.7 881.7 881.7 881.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-C .8434 .8300 .8398 .9168	234.3 200.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1 .9226 .9219 .949.8 .849.2 .7896	7/SEC -633.5 -614.8 -615.8 -615.8 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 .5171 .5424 .5532 .5727	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M°-1 .6063 .6145 .6202 .6374	FY/SEC 599,1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'-2 .7496 .7572 .7661 .8280 .8664
% SPAN 5 10 15 30 50 95 95 10 16 30 50 70	DIA-1 IN 17.720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240 INCS BEGREE 2.50 2.72 1.88 -77 -1.87	18,580 19,110 19,110 21,600 24,200 28,900 29,600 30,270 INCM 6,46 6,48 6,48 6,48 6,48 3,64 3,64 3,64 4,05 3,64 4,05	-T/SEC 1020,4 1023,4 1023,4 1026,4 947,9 886.1 784.2 754.7 732.3 DEV 13-19 14-55 12-55 13-51	602.7 631.0 642.1 648.2 648.2 641.8 598.7 561.5 534.7 TURN E 55.45 96.17 41.26 35.90	626.1 626.2 626.2 705.8 701.8 701.8 652.3 618.3 618.3 690.1 CAMBER 62.55 59.0 51.73 44.79 45.30	601.5 630.9 641.7 660.7 647.8 598.6 561.3 534.7 50LIDTY 2.1078 1.9473 1.7529 1.5466	805.7 792.5 632.3 541.5 435.2 435.5 435.7 D-FAC 6004 5699 .5441 .4889 .4371	-34.4 1.4 21.1 6.6 20.0 7.6 7.8 11.0 6.3 0MEGA-B .1264 .1380 .1264 .0552 .0453	52,15 50,15 40,05 41,84 37,68 33,72 34,99 36,32 LOSS-P TOTAL 0340 0324 0153	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0299 .0340 .0158 .0158 .0158 .0158	20,51 -17:18:20 -11:25 -18:20 -11:25 -18:20 -29:42 -40:13 -42:53 -94:53 -94:53 -94:53 -94:53 -94:54 -94:54 -94:54 -94:54 -98:54	46.46 46.49 44.23 49.53 53.23 57.07 59.24 61.13 MEGA-8F NOCK .0000 .0000 .0000	739.5 668.6 678.6 686.3 709.0 739.5 819.3 819.3 808.7 800.8 FF-AD 0000 0000 0000 0000	873.7 8819.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-P TATIC .8434 .8308 .9168 .9283 .9168 .9283 .9647 .8443	234,3 230,5 133,6 -49,4 -231,4 -395,0 -495,4 -520,9 -541,4 M-1 .9226 .9219 .9040 .8492 .7896	-633.5 -633.5 -615.5 -615.5 -689.9 -760.4 -924.1 -924.5 -969.8 M-2 -5171 .5424 .5532 .5727 .5621 .5573 .4835	571.4 591.7 614.9 681.7 772.9 863.6 953.5 975.1 M'-1 .6063 .6145 .6202 .6374 .6602 .7088 .7088	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*~2 .7496 .7572 .7661 .8280 .8664 .9314 .9525 .9456
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 17,720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240 INCS BEGREE 2.50 2.72 1.8877 -1.87 -3.46 -3.02	IN 18,580 19,110 19,710 21,600 24,200 26,890 27,600 30,270 INCM 6,46 6,46 6,46 6,46 3,46 3,49	-T/SEC 1020.4 10	602.7 631.0 642.1 648.2 648.2 641.8 598.7 561.5 534.7 TURN E 55.45 96.17 41.26 35.90	626.2 626.2 626.2 705.2 6705.2 6518.3 6518.3 6518.3 6518.3 590.3 590.3 6518.3 590.3 6518.3 590.3 6518.3 651	601.5 630.9 641.7 647.9 647.9 647.9 6561.3 534.7 50LIDTY 2.1079 1.9473 1.7529 1.3486 1.2866	805.7 792.5 632.3 541.5 468.2 433.7 D-FAC ( 6004 .5441 .4889 .4574 .4482	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1254 .1254 .0552 .0413 .0660	52,15 50.15 41.84 37.66 34.99 36.32 LOSS-P TOTAL .0299 .0324 .0158 .0158 .0158	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0299 .0340 .0158 .0158 .0158 .0158	20,51 -17.19 -11.25 -11.25 -11.25 -3.97 -18.20 -37.22 -40.13 -42.53 -9465 -9465 -9477 -9861 -9861 -9861	46.46 46.49 44.23 49.53 53.23 57.07 59.24 61.13 MEGA-8F NOCK .0000 .0000 .0000	739.5 819.3 819.3 808.7 800.8 FF-AD 1000 1000 1000 1000 1000 1000 1000	873.7 8819.2 955.3 999.1 1072.6 1101.2 1098.0 1107.4 EFF-P TATIC .8434 .8398 .9168 .9283 .9168 .9283 .9647 .8443	234,3 200,5 133,6 -49,4 -231,4 -395,0 -495,4 -520,9 -541,4 M-1 .9226 .9219 .9040 .8492 .7896 .6912	7/SEC -633.5 -633.5 -615.5 -689.9 -760.4 -859.1 -943.5 -969.8 M-2 .5171 .5424 .5532 .5727 .5621 .5178	571.4 591.7 614.9 681.7 772.9 863.6 953.5 975.1 M'-1 .6063 .6145 .6202 .6374 .6602 .7088 .7088	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*~2 .7496 .7572 .7661 .8280 .8664 .9314 .9525 .9456
% SPAN 5 10 15 30 50 95 95 95 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 1N 27.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS ECREE 2.50 2.72 1.8877 -1.87 -3.46 -3.02 -1.86	18,580 19,110 19,110 24,200 24,200 28,900 29,600 30,270 INCM 6,498 6,498 6,22 4,05 3,49 4,75 5,89	-T/SEC 1020,4 10236,4 10266,4 947.3 886.1 8364.2 754.7 732.3 DEV EGREE 13.19 14.55 12.55 15.80 16.83 17.00	602.7 631.0 640.7 640.7 648.2 648.7 561.5 534.7 534.7 7URES 55.4 55.4 55.4 55.4 55.4 55.4 55.4 55.	626.1 626.1 648.4 705.8 701.8 652.3 618.3 618.3 618.3 659.1 CAMBER 62.55 57.07 57.07 45.59 45.79 45.79	601.5 630.9 641.7 660.7 647.8 598.6 561.3 534.7 50LIDTY 2.10298 1.9473 1.7529 1.3486 1.2866 1.2554 1.2271	805.7 792.5 632.3 548.8 435.2 435.5 435.2 435.5 004.6 5694.1 .4884.2 .4784.6 .4784.6 .4784.6 .4784.6 .4784.6	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1254 .1380 .1264 .0552 .0450 .0803 .0837	52,15 50,15 41,84 37,66 34,98 33,72 34,99 36,32 LOSS-P TOTAL 0299 .0324 .0158 .0158 .0158	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0340 .0158 .0158 .0158 .0158 .0158 .0158	20,51 =17-19 =11-29 -13-97 -18-20 -29-66 -37-22 -40-13 -42-53 -94-65 -94-65 -94-94 -94	#6.49 #4.26 #3.80 #6.23 #9.55 -53.23 57.07 59.24 61.13 MEGA-85 OOCK -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	739.5 668.6 678.6 686.3 709.0 739.5 819.3 819.3 808.7 800.8 FF-AD 0000 0000 0000 0000 0000 0000 0000 0	873.7 8813.7 8819.2 955.3 1072.6 1101.2 1101.2 1101.2 1107.4 EFF-P TATIC .8434 .8398 .9168 .9168 .9168 .9168 .9168 .9443 .8443	234,3 200,5 133,6 -49,4 -231,4 -395,0 -495,4 -520,9 -541,4 M-1 .9226 .9219 .9040 .8492 .7896 .6912 .6624 .6402	7/SEC -633.5 -633.5 -615.5 -689.9 -760.4 -859.1 -943.5 -969.8 M-2 .5171 .5532 .5727 .5621 .4835 .4588	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145 .6202 .6374 .6008 .7224 .7099 .7000	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'-2 .7496 .7572 .7661 .8664 .9314 .9525 .9456
% SPAN 5 10 15 30 50 95 95 95 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 17,720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 2.50 2.72 1.8877 -1.87 -3.4687	IN 18.580 19.110 19.740 24.600 24.200 25.890 27.600 30.270 INCM 6.46 6.46 6.42 4.05 3.64 4.75 5.09 NCOR-1	-T/SEC 1020.4 1020.4 1020.4 1020.4 1020.4 1020.4 947.3 886.1 8364.2 754.7 732.3 DEV 13.19 14.55 12.55 13.58 17.80 400.8	57.55.45.0 648.85.45.0 648.85.75.61.7 534.7 561.7 53.45.0 55.45.0 41.26 55.45.0 41.26 32.96.17 41.26 32.96.8 33.64 WC/A-1	626.1 626.2 705.8 701.8 701.8 6518.3 6518.3 6518.3 6518.5 590.7 652.5 590.7 652.5 570.7 445.9 650.7 704.7 450.7 707.7 709.7 709.7	601.5 630.9 641.7 647.9 647.9 647.9 641.8 598.6 561.3 534.7 50LIDTY 2.10798 1.9473 1.7529 1.3866 1.2554 1.2866	805.7 792.5 632.5 432.5 435.2 435.2 435.7 D-F AC (099 .54489 .4574 .4482 .4784 .5076	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1254 .1380 .1264 .0552 .0450 .0803 .0837	52,15 50,15 41,84 37,66 34,98 33,72 34,99 36,32 LOSS-P TOTAL 0299 .0324 .0158 .0158 .0158	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0340 .0158 .0158 .0158 .0158 .0158 .0158	20,51 =17-19 =11-29 -13-97 -18-20 -29-66 -37-22 -40-13 -42-53 -94-65 -94-65 -94-94 -94	#6.49 #4.26 #3.80 #6.23 #9.55 -53.23 57.07 59.24 61.13 MEGA-85 OOCK -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	739.5 668.6 678.6 686.3 709.0 739.5 819.3 819.3 808.7 800.8 FF-AD 0000 0000 0000 0000 0000 0000 0000 0	873.7 8813.7 8819.2 955.3 1072.6 1101.2 1101.2 1101.2 1107.4 EFF-P TATIC .8434 .8398 .9168 .9168 .9168 .9168 .9168 .9443 .8443	234,3 200,5 133,6 -49,4 -231,4 -395,0 -495,4 -520,9 -541,4 M-1 .9226 .9219 .9040 .8492 .7896 .6912 .6624 .6402	-633.5 -633.5 -615.5 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 -5171 .5424 .5532 .5727 .5621 .5178 .4835 .4588	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145 .6202 .6374 .6602 .7088 .7099 .7000	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'~2 .7496 .7572 .7661 .8280 .8664 .9314 .9525 .9456 .9502 SLANT-2
% SPAN 5 10 15 30 50 95 95 95 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 17,720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 2.50 2.72 1.8877 -1.87 -3.4687	IN 18.580 19.110 19.740 24.600 24.200 25.890 27.600 30.270 INCM 6.46 6.46 6.42 4.05 3.64 4.75 5.09 NCOR-1	-T/SEC 1020.4 10	502.7 631.0 642.7 642.7 648.8 5961.7 5534.8 555.6 5534.8 555.6 5534.8 550.6 553.4 550.6 553.4 550.6 553.4 550.6 553.4 550.6 553.4 55	626.1 626.2 705.8 701.8 701.8 6518.3 6518.3 6518.3 6518.5 590.7 652.5 590.7 652.5 570.7 445.9 650.7 704.7 450.7 707.7 709.7 709.7	601.5 630.9 641.7 660.7 647.8 598.6 561.3 534.7 50LIDTY 2.10298 1.9473 1.7529 1.3486 1.2866 1.2554 1.2271	805.7 792.5 632.5 432.5 435.2 435.2 435.7 D-F AC (099 .54489 .4574 .4482 .4784 .5076	-34.4 1.4 21.1 6.6 20.0 7.8 11.0 6.3 0MEGA-B .1254 .1380 .1264 .0552 .0450 .0803 .0837	52,15 50,15 41,84 37,66 34,98 33,72 34,99 36,32 LOSS-P TOTAL 0299 .0324 .0158 .0158 .0158	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0340 .0158 .0158 .0158 .0158 .0158 .0158	20,51 =17-19 =11-29 -13-97 -18-20 -29-66 -37-22 -40-13 -42-53 -94-65 -94-65 -94-94 -94	46.46 46.49 44.23 49.53 53.23 57.07 59.24 61.13 MEGA-8F NOCK .0000 .0000 .0000	739.5 668.6 678.6 686.3 709.0 739.5 819.3 819.3 808.7 800.8 FF-AD 0000 0000 0000 0000 0000 0000 0000 0	873.7 8813.7 8819.2 955.3 1072.6 1101.2 1101.2 1101.2 1107.4 EFF-P TATIC .8434 .8398 .9168 .9168 .9168 .9168 .9168 .9443 .8443	234,3 200,5 133,6 -49,4 -231,4 -395,0 -495,4 -520,9 -541,4 M-1 .9226 .9219 .9040 .8492 .7896 .6912 .6624 .6402	-633.5 -633.5 -615.5 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 -5171 .5424 .5532 .5727 .5621 .5178 .4835 .4588	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145 .6202 .6374 .6602 .7088 .7099 .7000	FY/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M'-2 .7496 .7572 .7661 .8664 .9314 .9525 .9456
% SPAN 5 10 15 30 50 95 95 95 95 96 95 96 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 17,720 18.350 19.670 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 2.50 2.72 1.8877 -1.87 -3.4687	18.580 19.110 19.110 21.600 24.200 28.900 29.600 30.270 INCE 6.46 6.22 4.05 3.49 4.75 NCOR-1	-T/SEC 1020,4 1023,4 1023,4 1023,4 947,9 886,1 784,2 754,7 732,3 DEV ESEV 13-19 14-55 12-55 13-51 15-80 17-00 **COR-1	502.7 631.0 642.7 642.7 648.8 5961.7 561.5 57 TURRELS 50.46.2 50.46.2 33.84 41.90 32.88 41.90 33.86 41.90 35.46.2 50.4	626.2 626.2 642.48 705.28 701.28 6518.3 618.3 618.5 629.5 62	601.5 630.9 641.7 647.9 647.9 647.9 641.8 598.6 561.3 534.7 50LIDTY 2.10798 1.9473 1.7529 1.3866 1.2554 1.2866	805.7 792.5 632.5 632.5 468.2 435.5	7.6 -34.4 21.4 20.0 7.6 7.8 11.0 6.3 0MEGA-B .1254 .1380 .1264 .0450 .0450 .08037 EFF-P	52,15 50,15 41,84 37,66 34,98 33,72 34,99 36,32 LOSS-P TOTAL 0299 .0324 .0158 .0158 .0158	-3.31 1.88 .57 1.77 .68 .76 1.11 .67 LOSS-P ROFILE .0340 .0158 .0158 .0158 .0158 .0158 .0158	20,51 =17-19 =11-29 -13-97 -18-20 -29-66 -37-22 -40-13 -42-53 -94-65 -94-65 -94-94 -94	#6.49 #4.26 #3.80 #6.23 #9.55 -53.23 57.07 59.24 61.13 MEGA-85 OOCK -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	739.5 668.6 678.6 686.3 709.0 739.5 819.3 819.3 808.7 800.8 FF-AD 0000 0000 0000 0000 0000 0000 0000 0	873.7 8813.7 8819.2 955.3 1072.6 1101.2 1101.2 1101.2 1107.4 EFF-P TATIC .8434 .8398 .9168 .9168 .9168 .9168 .9168 .9443 .8443	234.3 230.5 230.5 133.6 -49.4 -231.4 -395.0 -495.4 -520.9 -541.4 M-1 .9226 .9219 .9040 .8492 .7896 .7424 .6624 .6402	-633.5 -633.5 -615.5 -615.5 -689.9 -760.4 -859.1 -924.1 -943.5 -969.8 M-2 -5171 .5424 .5532 .5727 .5621 .5178 .4835 .4588	571.4 591.7 614.9 681.7 772.9 863.8 930.6 953.5 975.1 M*-1 .6063 .6145 .6202 .6374 .6602 .7088 .7099 .7000	FT/SEC 599.1 616.2 636.5 696.5 780.3 866.8 931.9 954.5 976.1 M*~2 .7496 .7572 .7661 .8280 .8664 .9314 .9525 .9452 .9525 .9502 SLANT-2 DEGREE

Blade-Element and Overall Performance with Stator-Hub Slit Suction

RO	T	O	F

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~ ^^		DIA=2	V=1	V=2	VM=1	VM=2	V0=1	V0-2	B-1	8-2	Biel	81-2	Viel	V1-2	VO'-1	VUI-2	U-1	U-2
% SPAN														FT/SEC F	-422.5	370.0	422.5	516.2
10		16.030 16.790		1079.2				886.2 852.4	.00			-29.95 -25.70	753.5		-454.0	311.8	454.0	
15		17.580		1070.2				800.2	.00			-19.69	784.7		-488.5	234.1	488.5	
30		19.910		930.6				667.4		45.80		-2.25			-588.7	26.3	586.7	
50 50		3.090							-00		46.62				-714.6		714.6	
70		26.260							•00	39.22	50.42		1081.2		-833.4		833.4	
85		28.610	690.9						.00	38.88	52.98		1147.5		-916.2		916.2	
90		29.410		676.8							53.83		1169.6			-504.4	944,2	947.1
95		.0.180							.00	42.83	54.63	48.18	1190.7	712.9	-970.9	-531.3	970.9	971.9
		INCM_		TURN		SOLIDIY	D-FAC.	OMEGA-B						OMEGA-B	M=1	M-2	M'-1	M'-2
% SPAN	0501155											TOTAL			<b>.</b>			
5	-5.35			65.60							1.5321				.5434	1.0029		
10	-4.45			62.75		2.2864					1.5658		.9238					
15	-3.81	2.49	7.18			2.1578					1.5706	.9503				.9372		
30	-2.90					1.9054					1.5554	.9818	•9806			• 6343		
50	-2-01	2.98				1.6908				0086		.9695					1.0072	
70	~.86			18.74		1.5348					1.5146 1.4860		.9646				1.0708	
85	36 31					1.4422					1.4590						1.0910	
90 95	39					1.3891					1.4363						1.1098	
350	-837	2.70	14103	0.44	17.40	1.301	10340	.1234	*05/4	, UDE,	217000		• , , , ,	10100		13011	111070	
		NCORe1	₩COR=1	WC/A=1	T02/	P02/	EFF-AD	EFF-P							STA-1 S	TA-2 S	LANT-1	SLANT-2
				LBM/SEC		P01	×	*								D	EGREE	DEGREE
		-		SOFT												_		
		7380 •		41.31	1.1356	1.5182	93 - 467	93,91							5.0	6.0	86.05	95.02
			,			- · <del>-</del> ·												
CITE A 1																		
DIA	TOR																	
51A				_												W0.0-0		11-9
	DIA-1	DIA=2	V=1	V=2	VM-1	VM=2	V0=1	V0-2	B-1	B=2	B1=1	a!=2	V!-1		vo'-1		U-1	U=2
%.SPAN	DIA-1 IN 1	N F	T/SEC !	T/SEC F	T/SEC F	T/SEC F	T/SEC F	T/SEC D	EGRÉE C	EGREE C	EGREE (	EGREE F	T/SEC F	FT/SEC F	T/SEC F	T/SEC F	T/SEC F	T/SEC
%.SPAN 5	DIA-1 IN 1 17.720	18.580	1/SEC	586.5	T/SEC F	7/SEC F 585.1	1/SEC F 801.3	T/SEC 0	EGREE 0	EGREE 0	EGREE ( -20.86	EGREE F	T/SEC   647.8	FT/SEC F 863.6	7/SEC F	T/SEC F	T/SEC F	T/SEC 598.3
% <u>SPAN</u> 5 10	DIA-1 IN 17.720 18.350	18.580 19.110	T/SEC   1004.2 1004.5	586.5 612.3	605.2 631.3	585.1 612.1	## 801.3 ## 781.2	7/SEC ( -36.7	52.94 51.06	EGREE 0 -3.62 -01	-20.86 -16.78	EGREE F 47.35 45.14	T/SEC   647.8 659.5	FT/SEC F 863.6 967.8	7/SEC F 230.7 190.3	T/SEC F -635.0 -615.1	T/SEC F 570.6 590.9	T/SEC 598.3 615.4
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	N F 18.580 19.110 19.740	1004.2 1004.5 1004.5 987.8	586.5 612.3 622.7	605.2 631.3 655.2	585.1 612.1 622.3	T/SEC F 801.3 781.2 738.9	T/SEC ( -36.7 .3 21.0	52.94 51.06 48.43	EGREE 0 -3.62 .01 1.93	EGREE ( -20.86 -16.78 -10.80	EGREE F 47.35 45.14 44.65	T/SEC   647.8 659.5 667.7	FT/SEC F 863.6 967.8 874.7	7/SEC F 230.7 190.3 124.8	T/SEC F -635.0 -615.1 -614.7	T/SEC / 570.6 590.9 614.1	7/SEC 598.3 615.4 635.7
% SPAN 5 10 15 30	DIA-1 IN 1 17.720 18.350 19.070 21.140	N F 18.580 19.110 19.740 21.600	7/SEC 1 1004-2 1004-5 987-8 933-3	586.5 586.5 612.3 622.7 646.8	7/SEC 6 605.2 631.3 655.2 689.7	585.1 612.1 622.3 646.8	T/SEC F 801.3 781.2 738.9 628.4	77/SEC ( -36.7 .3 21.0 7.0	52.94 51.06 48.43 42.32	EGREE 0 -3.62 -01 1.93 -62	-20.86 -16.78 -10.80 4.30	EGREE F 47.35 45.14 44.65 46.78	T/SEC   647.8 659.5 667.7 693.1	FT/SEC F 863.6 867.8 874.7 944.8	7/SEC F 230.7 190.3 124.8 -52.3	T/SEC_F -635.0 -615.1 -614.7 -688.6	T/SEC F 570.6 590.9 614.1 680.6	598.3 615.4 635.7 6*9.6
% SPAN 5 10 15 30 50	DIA=1 IN 17-720 18-350 19-070 21-140 23-970	18.580 19.110 19.740 21.600 24.200	7/SEC 1 1004-2 1004-5 987-8 933-3 875-0	586.5 612.3 622.7 646.8 636.9	605.2 631.3 655.2 689.7 687.6	7/SEC F 585.1 612.1 622.3 646.8 636.5	T/SEC F 801.3 781.2 738.9 628.4 540.9	7/SEC ( -36.7 .3 21.0 7.0 21.5	52.94 51.06 46.43 42.32 38.18	-3.62 -3.62 -01 1.93 -62 1.93	-20.86 -16.78 -10.80 4.30 18.51	EGREE F 47.35 45.14 44.65 46.78 49.96	7/SEC 647.8 659.5 667.7 693.1 726.5	FT/SEC F 863.6 867.8 874.7 944.8 989.8	7/SEC F 230.7 190.3 124.8 -52.3 -231.u	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8	T/SEC F 570.6 590.9 614.1 680.8 771.9	598.3 615.4 635.7 6*9.6
% SPAN 5 10 15 30 50 70	DIA=1 IN 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200 26.880	7/SEC 1004-2 1004-5 987-8 933-3 875-0 828-6	586.5 612.3 622.7 646.8 636.9 632.5	605.2 631.3 655.2 689.7 687.6 681.3	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3	7/SEC F 801.3 781.2 738.9 628.4 540.9 471.6	7.0 -36.7 -36.7 -3 21.0 7.0 -21.5 12.5	52.94 52.94 51.06 46.43 42.32 38.18	-3.62 -3.62 -01 1.93 -62 1.93	-20.86 -16.78 -16.80 4.30 18.51 29.82	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44	T/SEC   647.8 659.5 667.7 693.1 726.5 786.2	FT/SEC F 863.6 967.8 874.7 944.8 989.8	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -391.1	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0	T/SEC F 570.6 590.9 614.1 680.8 771.9	7/SEC 598.3 615.4 635.7 6*9.6 7/2.3
% SPAN 5 10 15 30 50 70 85	DIA=1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	7/SEC 1004-2 1004-5 987-8 933-3 A75-0 828-6 789-2	586.5 612.3 622.7 646.8 636.9 632.5 607.2	605.2 631.3 655.2 689.7 687.6 681.3 654.8	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1	77/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5	7.5EC 0 -36.7 .3 21.0 7.0 21.5 12.5 9.4	52.94 52.94 51.06 48.43 42.32 38.18 34.68 33.94	-3.62 -01 1.93 -62 1.93 1.14	-20.86 -16.78 -10.80 4.30 18.51	EGREE F 47.35 45.14 44.65 46.78 49.96	T/SEC   647.8 659.5 667.7 693.1 726.5 786.2 817.3	FT/SEC F 863.6 867.8 874.7 944.8 989.8	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -391.1 -488.8	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2	T/SEC   570.6 590.9 614.1 680.8 771.9 862.7	598.3 615.4 635.7 649.6 7.2.3 865.6
\$ SPAN 5 10 15 30 50 70 85 90	DIA=1 IN 17.720 18.350 19.070 21.140 23.970 26.790	N F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	7/SEC 1004-2 1004-5 987-8 933-3 H75-0 828-6 789-2 763-1	586.5 612.3 622.7 646.8 636.9 632.5	FT/SEC F 605.2 631.3 655.2 689.7 687.6 601.3 654.8 623.5	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1	7/SEC F 801.3 781.2 738.9 628.4 540.9 471.6	7.0 -36.7 -36.7 -3 21.0 7.0 -21.5 12.5	52.94 52.94 51.06 46.43 42.32 38.18	-3.62 -3.62 -01 1.93 -62 1.93	-20.86 -16.78 -16.78 -10.80 4.30 18.51 29.82 36.75	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62	T/SEC   647.8 659.5 667.7 693.1 726.5 786.2 817.3 807.3	FT/SEC F 863.6 967.8 874.7 944.8 989.8 1062.0	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -391.1 -488.8 -512.4	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0	T/SEC   570.6 590.9 614.1 680.8 771.9 862.7 929.4	77/SEC 598.3 615.4 635.7 649.6 77.9.3 865.6 930.6
% SPAN 5 10 15 30 50 70 85	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	N F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	7/SEC 1004-2 1004-5 987-8 933-3 H75-0 828-6 789-2 763-1	T/SEC F 586.5 612.3 622.7 646.8 636.9 632.5 607.2 571.2	7/SEC 6 605.2 631.3 655.2 689.7 687.6 601.3 654.8 623.5	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.6	7/SEC ( -36.7 21.0 7.0 21.5 12.5 9.4 15.2	52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21	-3.62 -01 1.93 -62 1.93 1.14 -90 1.52	EUREE (-20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66	7/SEC 6 647.8 659.5 667.7 693.1 726.5 786.2 817.3 799.1	FT/SEC F 863.6 967.8 874.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -391.1 -488.8 -512.4	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0	T/SEC   570.6 590.9 614.1 680.8 771.9 862.7 929.4 952.2	7/SEC 598.3 615.4 635.7 6 %.6 7.62.3 865.6 930.6 933.2 974.8
\$\ \frac{5}{10} \\ 15 \\ 30 \\ 50 \\ 70 \\ 85 \\ 90 \\ 95	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS	N F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	7/SEC 1004-2 1004-5 987-8 933-3 A75-9 828-6 789-2 763-1 739-2	T/SEC F 586.5 612.3 622.7 646.9 632.5 607.2 571.2 541.7	7/SEC 6 605.2 631.3 655.2 689.7 687.6 681.3 654.8 623.5 594.3	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.6	7/SEC ( -36.7 21.0 7.0 21.5 12.5 9.4 15.2	52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21 36.49	-3.62 -3.62 -01 1.93 -62 1.93 1.14 -90 1.52 1.19	E 4 REE ( -20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66	7/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   799.1   EFF-AD	FT/SEC F 863.6 867.8 974.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3	T/SEC F 230.7 190.3 124.8 -52.3 -391.4 -391.6 -512.4 -512.4	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0	T/SEC   570.6 590.9 614.1 680.8 771.9 862.7 929.4 952.2	7/SEC 598.3 615.4 635.7 6 %.6 7.6.3 865.6 930.6 953.2 974.8
%.SPAN 5 10 15 30 50 70 85 90 95	DIA=1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	N F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	7/SEC 1004-2 1004-5 987-8 933-3 A75-9 828-6 789-2 763-1 739-2	T/SEC F 586.5 612.3 622.7 646.8 636.9 632.5 607.2 571.2 541.7	T/SEC 605.2 631.3 655.2 687.6 681.3 654.8 623.5 594.3	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.8 439.6	7.0 -36.7 -3.21.0 -21.5 12.5 -9.4 15.2 11.2	52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21 36.49	-3.62 -01 1.93 -62 1.93 1.14 -90 1.52	E 4 REE ( -20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66	7/SEC 6 647.8 659.5 667.7 693.1 726.5 786.2 817.3 799.1	FT/SEC F 863.6 867.8 974.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3	T/SEC F 230-7 190-3 124-8 -52-3 -231-u -391-1 -488-8 -512-4 -534-2	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0 -963.5	T/SEC 570.6 590.9 614.1 680.6 771.9 862.7 929.4 952.2 973.8	FT/SEC 598.3 615.4 635.6 779.3 865.6 930.6 953.2 974.8
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5	DIA=1 17-720 18-350 19-070 21-140 23-970 26-790 29-570 30-240 INCS DEGREE [ 3-17	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE T	T/SEC 1004-2 1004-5 987-8 933-3 A75-3 A75-3 1739-2 DEV DEGREE 12-87	T/SEC F 586.5 612.3 622.7 646.8 636.9 632.5 607.2 571.2 541.7 TURN (DEGREE T	605.2 631.3 655.2 689.7 687.6 681.3 654.8 623.5 594.3 CAMBER S DEGREE 62.54	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.8 439.6	7.06.7 -36.7 -3.3 21.0 -21.5 12.5 9.4 15.2 11.2 DMEGA=B	52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21 36.49 LOSS-P	-3.62 -3.62 .01 1.93 .62 1.93 1.14 .90 1.52 1.19 LOSS-P	E 4REE ( -20.86 -16.78 -10.80 4.30 4.31 29.82 36.75 39.43 41.95 P02/ ( P01 Sh.9460	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EFE-AD   TOTAL   .0000	FT/SEC F 863.6 967.8 974.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8411	T/SEC F 230.7 190.3 124.8 -52.3 -231.4 -391.1 -488.8 -512.4 -534.2 M-1	T/SEC F -635.0 -615.7 -688.6 -757.8 -853.0 -921.2 -938.0 -963.5 M-2	T/SEC   570.6   590.9   614.1   680.8   771.9   662.7   952.2   973.8   M'=1   .5864	7/SEC 598.3 615.7 6.55.7 6.70.6 7.70.3 865.6 930.6 953.2 974.8 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE [ 3-17 3-07	18.580 19.110 19.7740 21.600 24.200 26.880 28.900 30.270 INCM DEGREE U 7.14 7.32	T/SEC   1004-2   1004-5   987-8   933-3   175-9   828-6   763-1   739-2   DEV   DEGREE   12-87   15-96	586.5 612.3 622.7 646.8 636.9 632.5 607.2 571.2 541.7 TURN ( DEGREE 6 55.56	605.2 631.3 655.2 689.7 687.6 681.3 654.8 623.5 594.3 CAMBER : DEGREE 62.54 59.57	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.6 D=FAC (	77/SEC ( -36.7 .3 21.5 7.0 21.5 12.5 9.4 15.2 11.2 DMEGA=B	52.94 51.06 48.43 42.32 38.18 34.68 35.94 35.49 LOSS-P TOTAL9 .0346	-3.62 -3.62 .01 1.93 .62 1.93 1.14 .90 1.52 1.19 LOSS-P ROFILE	E9REE (-20.86 -16.88 -16.88 -16.89 4.30 18.51 29.82 36.75 39.43 41.95 PQ2/ (PO1 Se .9420	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66	T/SEC   647.8 659.5 667.7 693.1 726.5 786.2 817.3 799.1 EFF-AD   10000 0000	FT/SEC F 863-6 967-6 967-6 974-7 944-8 949-8 1062-0 1103-4 1098-3 1105-3 EFF-P STATIC -8411 -8275	T/SEC F 230.7 190.3 124.8 -52.3 -231.4 -391.1 -488.8 -512.4 -534.2 M-1	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0 -963.5 M-2 .5028 .5259	T/SEC 570.6 590.9 614.1 680.8 771.9 862.7 929.4 952.2 973.8 M'-1	7/SEC 598.3 615.4 635.7 6*5.6 7.2.3 865.6 930.6 953.2 974.8 M*-2
7. SPAN 5 10 15 30 50 70 85 90 95 24 SPAN 5 10	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE [ 3-17 3-07 2-31	18.580 19.110 19.740 21.600 28.200 26.880 28.900 29.600 30.270 INCM DEGREE U 7.14 7.32 6.65	T/SEC 1004-2 1004-5 987-8 933-3 A75-0 628-6 789-2 763-1 739-2 DEV DEGREE 12-87 15-98 17-37	T/SEC F 586.5 612.7 646.8 636.9 632.5 607.2 571.2 541.7 TURN DEGREE T 56.56 51.04 46.50	T/SEC   605.2   605.2   631.3   655.5   689.7   687.6   601.3   623.5   594.3   CAMBER   595.5   57.07   57.07	77/SEC F 585-1 612-1 622-3 646-8 636-5 632-3 607-1 570-9 541-6 SOLIDTY 2-1077 2-0299 1-9477	T/SEC F 801.3 781.2 738.9 628.4 540.9 471.6 440.5 439.8 439.6 .5780 .5780	7.0 21.0 7.0 21.5 12.5 9.4 15.2 11.2 0MEGA=B	52.94 51.43 42.32 38.18 34.68 33.94 35.21 36.49 LOSS-P TOTAL .0309 .0336	-3.62 -3.62 .01 1.93 .62 1.93 1.19 1.52 1.19 LOSS-P ROFILE .0309	E9REE (-20.86 -16.88 -10.80 4.30 18.51 29.43 41.95 P02/CP01 Sh.9460 .9473	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 0MEGA-RE 10CK 1	T/SEC   647.8 659.5 667.7 693.1 726.5 817.3 807.3 799.1 EFF-AD   1000 0 000 000 0000	FT/SEC F 863.6 967.6 967.8 944.8 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8411 .8275 .8333	T/SEC F 230-7 194-8 -52-3 -231-4 -488-8 -512-4 -534-2 -9052 .8860	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -931.2 -938.0 -963.5 M-2 .5028 .5259 .5360	T/SEC 570.6 590.6 590.9 614.1 680.8 771.9 862.7 929.4 952.2 973.8 M'-1	7/SEC 598.3 615.4 635.7 6 % 6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530
5 10 15 30 50 70 85 99 95 <b>3. SPAN</b> 5 10 15 30	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-3126	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55	T/SEC 1004-2 1004-3 987-3 987-3 933-3 775-0 828-6 763-1 739-2 DEV DEGREE 12-87 15-96 17-37 14-60	T/SEC F 586.5 612.3 622.7 646.8 636.9 637.2 571.2 541.7 TURN ( 56.56 51.04 46.50	T/SEC	77/SEC F 585-1 612-1 622-3 646-8 636-5 632-3 570-9 541-6 50LIDTY 2.1077 2.0299 1.9477 1.7335	T/SEC F 801.3 781.9 738.9 628.4 540.9 471.6 439.6 439.6 .6096 .5780 .5787	TYSEC [ -36.7	DEGREE C 52.94 51.06 48.43 42.32 38.18 34.69 35.21 36.49 LOSS-P TOTAL .0309 .0346 .0166	-3.62 -3.62 .01 1.93 .62 1.93 1.14 .90 1.52 1.19 LOSS-P ROFILE .0309 .0346	EGREE (20.86 - 10.86 +	DEGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MEGA-BE 10CK .0000 .0000	T/SEC   647.8 659.5 667.7 693.1 726.5 786.2 817.3 807.3 799.1 FF-AD   10000 0.0000 0.0000	FT/SEC F 863-6 967-8 967-8 944-8 9062-0 1103-4 1098-3 1105-3 EFF-P STATIC -8411 -8275 -8333 -9118	T/SEC F 230.7 190.8 -52.3 -231.u -391.1 -512.4 -534.2 M-1 .9052 .9068 .8860 .8353	T/SEC F -615.0 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0 -963.5 M-2 .5028 .5360 .5601	T/SEC 570.6 570.6 614.1 680.8 771.9 862.7 952.2 973.8 M'-1 .5864 .5962 .60221	7/SEC 598.3 615.3 635.7 670.6 7.2.3 865.6 953.2 974.8 M*-2 .7403 .7454 .7530
5 10 15 30 50 70 85 90 95 10 15 30 50 70 85 10 15 30 50 50 50	DIA=1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE [ 3.17 3.07 2.3126 -1.33	18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270 DEGREE T 7.32 6.65 4.55	T/SEC 1004-2 100	T/SEC F 586.53 612.7 646.8 636.9 632.5 571.2 571.2 541.7 TURN ( DEGREE T 51.04 46.50 41.70	605.2 631.3 655.2 689.7 687.6 681.3 654.8 623.5 594.3 CAMBEE 62.57 57.07 51.77	585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 50LIDTY 2.1077 2.0299 1.9477 1.7535 1.5485	T/SEC F 801.3 781.9 628.4 540.9 471.6 440.5 439.6 439.6 .5780 .55780 .55780	7.5EC [ -36.7	DEGREE C 52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21 36.49 LOSS-P TOTALF .0346 .0346 .0166	-3.62 .01.93 .62 1.93 1.14 .90 1.52 1.19 LOSS-P ROFILE .0336 .0346 .0136	EGREE [-20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 PO2/ S 9420 .9420 .9420 .9436 .94859	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 0MEGA-BE 10CK .0000 .0000 .0000	T/SEC   647.8   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   FF-AL   .0000	FT/SEC F 863.6 867.6 8674.7 944.8 949.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8275 .8333 .9118	7/SEC F 230.7 190.3 124.8 -52.3 -391.1 -488.8 -512.4 -534.2 M-1 .9052 .8866 .8759	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -953.0 -921.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601	7/SEC 570.6 590.9 614.1 680.8 771.9 862.7 929.4 952.2 973.8 M'-1 .5864 .6962 .6021 .62474	7/SEC 598.3 615.4 635.7 6 %.6 7/2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8575
7. SPAN 5 10 15 30 50 70 85 90 95 3. SPAN 5 10 15 30 50 70	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE [ 3-17 3-07 2-31265	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.55	T/SEC 1004-2 1004-5 1004-5 987-8 987-8 933-3 759-2 763-1 739-2 DEV DEV 12-87 14-60 12-71 13-95	T/SEC F 586.53 612.7 646.8 636.9 632.5 607.2 571.2 541.7 TURN ( DEGREE T 56.56 41.70 41.70 33.55	7/SEC 605-2 631-3 655-2 689-7 687-6 681-3 654-8 623-5 594-3 CAMBER SEGRE 62-54 62-54 44-24 44-24	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.5 607.1 570.9 541.6 50LIDTY 2.1077 2.0299 1.9477 1.7335 1.5485 1.3868	T/SEC F 801.3 781.9 628.4 540.9 471.6 440.5 439.8 439.6 .5780 .5527 .4945 .4360	7.5EC [ -36.7	DEGREE C 52.94 51.06 48.43 42.32 38.18 34.68 33.94 35.21 36.49 LOSS-P TOTAL C .03.96 .03.96 .03.96	-3.62 .01 .93 .62 1.93 1.94 .90 1.52 1.19 LOSS-P ROFILE .0336 .0166 .0137	EGREE [-20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 PQ2/ C PO1 Sh .9460 .9473 .9786 .9859 .9867	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MEGA-BE 10CK 1 .0000 .0000 .0000	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EF-AD   00000   00000   00000   00000   00000   00000   00000   00000   0000	FT/SEC F 863-6 967-6 967-6 974-7 944-8 989-8 1062-0 1103-4 1098-3 1105-3 EFF-P STATIC -8275 -8333 -9118	7/SEC F 230.7 190.3 124.8 -52.3 -231.1 -408.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7347	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -921.2 -938.0 -963.5 M-2 .5259 .5360 .5601 .5486	7/SEC 570.6 590.9 614.1 680.8 771.9 962.7 929.4 952.2 973.8 M'-1 .5864 .6962 .6021 .6474 .6970	7/SEC 598.3 615.4 635.7 6 %.6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8575 .9211
5 10 15 30 50 70 85 10 15 30 50 70 85 50 70 85 50 70 85 85 85 85 85 85 85 85 85 85 85 85 85	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE 3-17 3-07 2-31261-332-85	18.580 19.110 19.740 21.600 28.200 26.880 28.900 30.270 INCM DEGREE [7.14 7.32 6.65 4.55 4.55 4.55 3.69	T/SEC 1004-2 1004-2 1004-5 987-6 987	T/SEC F 586.5 612.7 646.8 636.9 637.2 571.2 541.7 TURN (DEGREE T 56.56 51.04 46.50 41.70 33.55	T/SEC	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 50LIDTY 2.1077 2.0299 1.9477 1.7535 1.5485 1.3866 1.2866	T/SEC F 801.3 781.9 628.4 540.9 471.6 439.8 439.6 .5527 .4945 .4360 .4427	7.5EC [ -36.7	DEGREE C 52.94 51.06 48.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0346 .0336 .0166	-3.62 -3.62 .01 1.93 .62 1.93 1.19 1.52 1.19 LOSS-P ROFILE .0309 .0346 .0166 .0137	E GREE [ -20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 PQ2/CF PO1 SF .9460 .9473 .9786 .9867 .9841	EGREE F 47.35 45.14 44.65 46.78 49.96 53.46 53.46 53.46 50.66  MEGA-BE 10CK 000 0000 00000 00000 00000	T/SEC 647.8 659.5 667.7 693.1 726.5 786.2 817.3 807.3 799.1 EFF-AD 10000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC F 863.6 967.6 967.8 944.8 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8275 .8333 .9118 .9260 .9117	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .7961	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -931.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .5486 .5252	T/SEC 570.6 590.9 614.1 680.8 771.9 662.7 952.2 973.8 M'=1 .5864 .5962 .6021 .6221 .6474 .7208	7/SEC 598.3 615.4 635.7 6*9.6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8573 .9545
5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-312-85 -2-81 -1-65	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.17 3.26 3.69	T/SEC 1004-2 1004-2 1004-3 987-3 987-3 933-3 775-0 925-2 12-87 15-94 17-37 14-60 12-71 13-95 15-94	T/SEC F 586.5 612.3 646.8 636.9 637.2 571.2 541.7 TURN ( 56.56 51.04 46.50 41.70 36.24 33.55 33.69	T/SEC 2 605.2 635.2 689.7 687.6 681.3 654.3 654.3 594.3 CAMBER 2 DEGREE 62.54 59.57 57.07 51.73 44.24 45.96	7/SEC F 585-1 612-1 622-3 646-8 636-5 632-3 570-9 541-6 SOLIDTY 2.1077 2.0299 1.9497 1.7335 1.3868 1.2866 1.2554	T/SEC F 801.3 781.9 628.4 540.9 471.6 439.8 439.6 .6096 .5787 .4945 .44360 .44360 .44360 .44360	7.5EC 7 -36.7 21.0 7.0 21.5 12.5 19.4 15.2 11.2 0MEGA-B .1307 .1310 .0583 .04425 .0578	DEGREE C 52.94 51.04 51.04 42.32 38.18 34.94 35.21 36.49 LOSS-P TOTAL I .0346 .0156 .0156 .0157 .0159	-3.62 -3.62 .01 1.93 .62 1.93 1.52 1.19 LOSS-P ROFILE .0346 .0156 .0166 .0137 .0159	EGREE [-20.86 -16.78 -10.80 -19.80 -19.85 -29.85 -36.75 -39.75 -39.75 -9420 -940 -940 -940 -940 -940 -940 -940 -94	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 0000 .0000 .0000 .0000	T/SEC   647.8 659.5 667.7 693.1 726.5 786.5 817.3 807.3 799.1 FF-AD   10000 .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	FT/SEC F 863.6 967.8 944.8 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8411 .8275 .8313 .9118 .9260 .9117 .8482	T/SEC F 230 · 7 190 · 3 124 · 8 -52 · 3 -231 · u -391 · u -488 · 8 -512 · 4 -534 · 2 M-1 .9052 .8860 .8353 .7790 .7347 .6961	T/SEC F -615.0 -614.7 -688.6 -757.8 -853.0 -921.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .5486 .5286 .54919	T/SEC 570.6 570.6 570.6 680.8 771.9 662.2 973.8 M'-1 .5864 .5962 .6021 .6221 .6474 .7088	7/SEC 598.3 615.3 635.7 679.6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8575 .9545
5 10 15 30 50 70 85 10 15 30 50 70 85 50 70 85 50 70 85 85 85 85 85 85 85 85 85 85 85 85 85	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE 3-17 3-07 2-31261-332-85	18.580 19.110 19.740 21.600 28.200 26.880 28.900 30.270 INCM DEGREE [7.14 7.32 6.65 4.55 4.55 4.55 3.69	T/SEC 1004-2 1004-2 1004-3 987-3 987-3 933-3 775-0 925-2 12-87 15-94 17-37 14-60 12-71 13-95 15-94	T/SEC F 586.5 612.3 646.8 636.9 637.2 571.2 541.7 TURN ( 56.56 51.04 46.50 41.70 36.24 33.55 33.69	T/SEC 2 605.2 635.2 689.7 687.6 681.3 654.3 654.3 594.3 CAMBER 2 DEGREE 62.54 59.57 57.07 51.73 44.24 45.96	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 50LIDTY 2.1077 2.0299 1.9477 1.7535 1.5485 1.3866 1.2866	T/SEC F 801.3 781.9 628.4 540.9 471.6 439.8 439.6 .5527 .4945 .4360 .4427	7.5EC [ -36.7	DEGREE C 52.94 51.06 48.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0346 .0336 .0166	-3.62 -3.62 .01 1.93 .62 1.93 1.19 1.52 1.19 LOSS-P ROFILE .0309 .0346 .0166 .0137	EGREE [-20.86 -16.78 -10.80 -19.80 -19.85 -29.85 -36.75 -39.75 -39.75 -9420 -940 -940 -940 -940 -940 -940 -940 -94	EGREE F 47.35 45.14 44.65 46.78 49.96 53.46 53.46 53.46 50.66  MEGA-BE 10CK 000 0000 00000 00000 00000	T/SEC   647.8 659.5 667.7 693.1 726.5 786.5 817.3 807.3 799.1 FF-AD   10000 .00000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .	FT/SEC F 863.6 967.6 967.8 944.8 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8275 .8333 .9118 .9260 .9117	7/SEC F 230.7 190.3 124.8 -52.3 -231.u -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .7961	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -931.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .5486 .5252	T/SEC 570.6 590.9 614.1 680.8 771.9 662.7 952.2 973.8 M'=1 .5864 .5962 .6021 .6221 .6474 .7208	7/SEC 598.3 615.4 635.7 6*9.6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8573 .9545
5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-312-85 -2-81 -1-65	18.580 19.110 19.740 21.600 28.200 26.880 28.900 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.55 4.55 4.55 6.07	T/SEC 1004-2 1004-2 1004-2 987-8 987-8 933-3 759-2 763-1 739-2 DEV DEV 12-87 14-60 12-75 15-94 17-24 17-51	T/SEC F 586.5 612.7 646.8 636.9 632.5 607.2 571.2 541.7 TURN (DEGREE F 51.04 46.50 41.70 33.69 33.69	T/SEC	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 SOLIDTY 2.1077 2.0299 1.9477 1.7335 1.5485 1.2866 1.2554 1.2271	T/SEC F 801.3 781.9 628.4 540.9 471.6 440.5 439.8 439.6 .5780 .5527 .4945 .4360 .4427 .4730	7.5EC [ -36.7 21.0 7.0 21.5 12.5 15.2 11.2 0MEGA=B .1307 .1307 .1310 .0583 .0442 .0575 .0778	DEGREE C 52.94 51.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0336 .0166 .0157 .0224 .0336	-3.62 -3.62 .01 1.93 .62 1.93 1.19 .90 1.52 1.19 LOSS-P ROFILE .03.09 .03.66 .01.66 .01.57 .02.24 .03.10 .02.24	EGREE (20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 P02/ SF 9460 .9473 .9786 9857 .9841 .9798	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MESA-BE ROCK 0000 00000 00000 00000 00000	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EFF-AD   10000   000000	FT/SEC F 863.6 967.6 967.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8217 .8333 .9118 .9260 .9117 .8808 .9448	T/SEC F 230.7 190.8 124.8 -52.3 -231.1 -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .6961 .6701	T/SEC F -615.1 -614.7 -688.6 -757.8 -921.2 -938.0 -963.5 M-2 .5259 .5360 .5601 .5517 .5486 .5252 .4919	7/SEC 570.6 590.9 614.1 680.8 771.9 862.7 952.2 973.8 M'-1 .5864 .5962 .6021 .6221 .6274 .6974 .6964	7/SEC 3 615.4 635.7 6 7.0 6 7.0 6 7.0 6 9 30 6 9 53 2 9 74 8 8 4 - 2 74 0 3 6 18 1 8 5 7 3 6 18 1 8 5 7 5 6 18 1 9 5 4 5 7 6 18 2 1 9 5 7 6 18 2 1 9 5 7 6 18 2 1 9 5 7 6 18 2 1 9 5 7 6 18 2 1 9 5 7 6 18 2 1 9 7 6 18 2
5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-312-85 -2-81 -1-65	18.580 19.110 19.740 21.600 28.200 26.880 28.900 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.55 4.55 4.55 4.95 6.07	T/SEC 1004-2 1004-2 1004-2 987-8 987-8 933-3 A75-0 828-6 763-1 739-2 DEV DEGREE 12-87 14-60 12-71 13-95 17-24 17-51 WCOR=1	T/SEC F 586.5 612.7 646.8 636.9 637.2 571.2 541.7 TURN (DEGREE T 56.56 51.04 46.50 41.70 33.59 33.69 35.30	T/SEC	7/SEC F 585-1 612-1 622-3 646-8 636-5 632-3 607-1 570-9 541-6 SOLIDTY 2.1077 2.0299 1.9477 1.7535 1.5485 1.2866 1.2554 1.2271	T/SEC F 801.3 7818.9 628.4 540.9 4710.5 439.8 439.6 .5787 .4945 .4367 .4420 .5527	7.5EC [ -36.7	DEGREE C 52.94 51.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0336 .0166 .0157 .0224 .0336	-3.62 -3.62 .01 1.93 .62 1.93 1.19 .90 1.52 1.19 LOSS-P ROFILE .03.09 .03.66 .01.66 .01.57 .02.24 .03.10 .02.24	EGREE (20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 P02/ SF 9460 .9473 .9786 9857 .9841 .9798	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MESA-BE ROCK 0000 00000 00000 00000 00000	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EFF-AD   10000   000000	FT/SEC F 863.6 967.8 944.8 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8411 .8275 .8313 .9118 .9260 .9117 .8482	T/SEC F 230.7 190.8 124.8 -52.3 -231.1 -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .6961 .6701	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -921.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .54647 (A=2 SL	T/SEC 570.6 590.9 614.1 680.8 771.9 662.7 952.2 973.8 M'-1 .5864 .5962 .6021 .6221 .6474 .6970 .7208 .6924	7/SEC 598.3 615.3 635.7 6.95.6 7.9.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8573 .9545 .9457 .9482
5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-312-85 -2-81 -1-65	18.580 19.110 19.740 21.600 28.200 26.880 28.900 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.55 4.55 4.55 4.95 6.07	T/SEC 1004-2 1004-2 1004-2 1004-2 1004-2 987-3 987-3 789-2 763-1 739-2 DEV 12-87 14-60 12-71 13-9 17-24 17-51 MCGR=1	T/SEC F 586.53 612.7 646.8 632.9 632.9 607.2 571.2 541.7 TURN ( DEGREE 6 51.04 46.50 41.70 33.53 33.69 35.30	T/SEC	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 SOLIDTY 2.1077 2.0299 1.9477 1.7335 1.5485 1.2866 1.2554 1.2271	T/SEC F 801.3 781.9 628.4 540.9 471.6 440.5 439.8 439.6 .5780 .5527 .4945 .4360 .4427 .4730	7.5EC [ -36.7 21.0 7.0 21.5 12.5 15.2 11.2 0MEGA=B .1307 .1307 .1310 .0583 .0442 .0575 .0778	DEGREE C 52.94 51.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0336 .0166 .0157 .0224 .0336	-3.62 -3.62 .01 1.93 .62 1.93 1.19 .90 1.52 1.19 LOSS-P ROFILE .03.09 .03.66 .01.66 .01.57 .02.24 .03.10 .02.24	EGREE (20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 P02/ SF 9460 .9473 .9786 9857 .9841 .9798	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MESA-BE ROCK 0000 00000 00000 00000 00000	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EFF-AD   10000   000000	FT/SEC F 863.6 967.6 967.7 944.8 989.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8217 .8333 .9118 .9260 .9117 .8808 .9448	T/SEC F 230.7 190.8 124.8 -52.3 -231.1 -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .6961 .6701	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -921.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .54647 (A=2 SL	7/SEC 570.6 590.9 614.1 680.8 771.9 862.7 952.2 973.8 M'-1 .5864 .5962 .6021 .6221 .6274 .6974 .6964	7/SEC 598.3 615.3 635.7 675.6 7.2.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .8181 .8575 .9457 .9482 SLANT-2
5 10 15 30 50 70 85 10 15 30 50 70 70 85 10 15 30 50 70 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA=1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-870 30-240 INCS DEGREE 3-17 3-07 2-312-85 -2-81 -1-65	18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE T 7.14 7.32 6.65 4.55 4.55 4.57 3.26 3.69 4.95	T/SEC 1004-2 1004-5 100	T/SEC F 586.5 612.7 646.8 636.9 637.2 571.2 541.7 TURN (DEGREE T 56.56 51.04 46.50 41.70 33.59 33.69 35.30	7/SEC 605-2 605-2 631-3 655-2 689-7 687-6 601-3 654-8 623-5 594-3 CAMBER SEGRE 62-54 45-96 45-96 45-76 T01	7/SEC F 585.1 612.1 622.3 646.8 636.5 632.3 607.1 570.9 541.6 SOLIDTY 2.1077 2.0299 1.9477 1.7335 1.3868 1.2866 1.2554 1.2271 PO1	T/SEC F 801.3 781.9 628.4 540.9 471.6 439.8 439.6 .5527 .4626 .4360 .44730 .55327 .4730 .4730 .4730 .4730 .4730	7.SEC [ -36.7 21.0 7.0 21.5 12.5 15.2 11.2 0MEGA-B .1307 .1405 .1310 .0583 .0442 .0575 .0778 .0826	DEGREE C 52.94 51.43 42.32 38.18 34.68 35.21 36.49 LOSS-P TOTAL .0309 .0336 .0166 .0157 .0224 .0336	-3.62 -3.62 .01 1.93 .62 1.93 1.19 .90 1.52 1.19 LOSS-P ROFILE .03.09 .03.66 .01.66 .01.57 .02.24 .03.10 .02.24	EGREE (20.86 -16.78 -10.80 4.30 18.51 29.82 36.75 39.43 41.95 P02/ SF 9460 .9473 .9786 9857 .9841 .9798	EGREE F 47.35 45.14 44.65 46.78 49.96 53.44 56.62 58.67 60.66 MESA-BE ROCK 0000 00000 00000 00000 00000	T/SEC   647.8   659.5   667.7   693.1   726.5   786.2   817.3   807.3   799.1   EFF-AD   10000   000000	FT/SEC F 863.6 967.6 967.6 974.7 944.8 1062.0 1103.4 1098.3 1105.3 EFF-P STATIC .8275 .8333 .9118 .9260 .9117 .8482 .8488	T/SEC F 230.7 190.8 124.8 -52.3 -231.1 -488.8 -512.4 -534.2 M-1 .9052 .8860 .8353 .7790 .6961 .6701	T/SEC F -635.0 -615.1 -614.7 -688.6 -757.8 -921.2 -938.0 -963.5 M-2 .5028 .5259 .5360 .5601 .5517 .5486 .5252 .4919 .4647	T/SEC 570.6 590.9 614.1 680.8 771.9 662.7 952.2 973.8 M'-1 .5864 .5962 .6021 .6221 .6474 .6970 .7208 .6924	FT/SEC 3 615.4 635.7 6 93.3 865.6 930.6 953.2 974.8 M*-2 .7403 .7454 .7530 .81575 .9211 .9545 .9211 .9545 .9212 .9545 .9482 SLANT-2 DEGREE

Blade-Element and Overall Performance with Stator-Hub Slit Suction 100% of Design Speed

							±00/0	OI DO		A								
		DIA-2	V-1	V-2	VM-1	yM-2	V0-1	V0-2	B-1	8-2	8,1-1	81-2	V-1	y1-2	V0 -1	y01-2	U=1	_U-2
% SPAN		IN 16-030				FT/SEC 1		878.6	DEWKEE (	34.09 54.09	EGREE	DEGREE F	721.5	TYSEC	-422.5			FTISEC
10	14.100	16.790		1000.0		635.8	• 0	848.0	.00	53.13	37.25	-25,77	750.1		-454.0	362.4		516.2 540.6
15		17.580		1023-5		645,8	• 0	794.4	.00	50.90	38.57	-19.44	781.2	685.4	-488.5	228.3	488.5	566.1
30 50		19.910 23.090	669.9				•0	665.0	•00	46.08	42.52		470.6	642.5	-588.6	23.9		
70		26.260		756.7	684.3		•0	561.6 482.2	.00	39,59	30.59		1078.4	117.5	-714.5 -833.3	-121.7	714.5	
85		28.510	687.1	709.0	687.3	551.5	. 0	445.4	00	38,93	53:12		1145.3	720.7	-916.1	-475.9	916.1	921.3
90		29.410			686.9	517.3	•0		•00	40.71		40.17	1167.5				984.1	21.3
96	30.130	30.180	686.2			•	•0	442.9	.00	42.41	54.75	47,48	1188.9	717.6	-970.8	-528.9	970.8	971.8
% SPAN	1NCS	INCH	DEA	TURN	CAMBER	SOLIDTY	D-FAC (	MEGA-B	LOSS-P	LOSS	P02/	EFF-P E			M-1	M-2	M*-1	M1-2
5	DEGREE -5.16		DEGREE 7.05		DEGREE	2.4334	. oano	.2085	TOTAL	PROFILE	P01 1.5257	TOTAL 1		10CK	.5393	.9932	.6659	.6765
10	-4.25		5.28		65.91	2.2864	2602 3265	1401	0276	0276	1.5560		9149	• 0000 .	.5518	.9654		
15	-3,61	2.70	7.43		62.68	2.1579	. 3754	.0865	+0157	.0189	1.5623	9457	9422	0000	.5639	9278		
30 50	-2.69 -1.81	3.00 3.19	11.62			1.9055	-2707	.0297	•0076		1.5487	.9755	9740	•0000	5942	.8267	.5067	
70	69		12.16 11.82		27.02	1.5349	.5267 .5087	.0314	•0097 •0087	10057	1.5294	.9660 .9632	•9639 •9610	•0000	.6225	•7300 •6583	1.6135	.5599
85	22	3,47	10.62	12.32	19,47	1.4422	4989	-0633	.0166	.0128	1.4987	.9917	.9172	0144	6401		1.0677	.6366
90	-,18	3,34	11.20	9,79		1.4148	-5170	.1076	.0273	•831	1.4693	. 5665	.4595	0144	6397	• 5935	1.0583	.6274
95	27	3.11	13.32	7,27	17.48	1.3891	.5306	.1441	.0350	+0305	1.4498	.8197	.8101	•03m3	.6390	.5687	1-1074	.6216
				WC/A-1		P02/	EFF-AD	EFF-P						5	TA-1 ST	A-2 SI	LANT-1	SLANT-2
		RPM L		LBM/SEC	TOI	POL	×	×									ERREE I	
		7380		SOFT	1.1355	1.5175	93.364	93.84							5.4	6.0	86.05	96.82
0.774							••••								3.0	-,0		73102
STA'	ľUK																	
	•																	
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-5	V0-1	V0-2	8-1	<b>6-</b> 2	81-1	81-2	V+-1	V1-2		V01-2	U=1	U-2
% SPAN	DIA-1	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGREE	DEGREE I	PEGREE	DESKEE !	TYSEC 1	TYSEC	TISEC	FYZSEC	FY/SEC	FY/SEC
% SPAN 5 10	DIA-1 IN 17.720	1N 18.580	FT/SEC 994.	FT/SEC	FT/SEC 598,4	577.0	FT/SEC	FT/SEC	DEGREE 53.01	DEGREE 1	-20 - 50	DEGREE 1	475EC 1	TYSEC 1	7/SEC 223,8	FY/SEC -638.6	FY/SEC 570.6	FT/SEC 598,3
5 10 15	DIA-1 IN 17.720 18.350	IN	994. 993. 993.	FT/SEC 578.7 602.1	598,4 618,1 645,6	577.0 602.5 612.3	794,4 777,6	FT/SEC -40-3	53.01 51.51	DEGREE 1 03.	-20.50 -16.50	050REE 47.90 45.59	639,0 645,8 647,4	860.8 861.0 865.3	7/SEC 223,8 186,5 119.6	FYZSEC	570.6 590.9 614.1	FY/SEC 598,3 615.3 635.6
5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140	1N 18.580 19.110 19.740 21.600	994. 993. 9977. 924.	FT/SEC 578.7 602.1 612.6 637.6	598.4 618.1 645.6 679.7	577.0 602.5 612.3 637.8	794,4 777,6 733.6 626.2	-40-3 24-2 8-7	53.01 51.51 48.64 42.64	DEGREE 1 -4.03 -01 2.26	-20-50 -16-50 -10-51	05 REE 47.90 45.59 44.96	639,0 645,8 647,4	860.8 861.0 865.3 937.4	7/SEC 223,8 186.5 119.6 -54.5	-638.6 -615.1 -611.5 -686.9	570.6 590.9 614.1 680.7	FY/SEC 598,3 615.3 635.6 695.5
5 10 15 30 50	01A-1 IN 17.720 18.350 19.070 21.140 23.970	1N 18.580 19.110 19.740 21.600	994.0 993.0 993.0 977.0 924.0	FT/SEC 5 78.7 602.1 612.6 637.6 3 631.6	598,4 618,1 645,6 679,7	577.0 602.5 612.3 637.8 630.9	794,4 777,6 733.6 626.2 540.8	24.2 24.2 21.6	DE REE 53.01 51.51 48.64 42.64 38.47	DEGREE 1 -4.03 .01 2.26 .78	-20-50 -16-50 -10-51 4-55	97,90 45,59 44,96 47,11 50.20	439,0 645,8 657,4 663,2 719,7	#60.8 #61.0 #65.3 937.4 986.0	7/SEC 223,8 186.5 119.6 -54.5 -231.0	FY/SEC -638.6 -615.1 -611.5 -686.9 -757.6	570.6 570.6 590.9 614.1 680.7 771.8	FY/SEC 598,3 615.3 635.6 695.5 779.2
5 10 15 30	01A-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	1N 18.580 19.110 19.740 21.600	994.0 993.0 997.0 924.0 869.0	FT/SEC 578.1 602.1 612.6 637.6 631.2 7 628.7	598,4 618,1 645,6 679,7 680,4	577.0 602.5 612.3 637.8 630.9 628.6	774,4 777,6 733.6 626.2 540.8 472.6	24.2 24.2 21.6	53.01 51.51 48.64 42.64 38.47	DEGREE 1.03 .01 2.26 .78 1.96	-20-50 -16-50 -10-51 -10-55 -18-70 -29-75	026822 47,90 45,59 44,96 47,11 50.20	639,0 645,8 657,4 663,2 719,7	77SEC 860.8 861.0 865.3 937.4 986.0	7/SEC 223,8 186.5 119.6 -54.5 -231.0	FY/SEC -638.6 -615.1 -611.5 -686.9 -757.6	570.6 570.6 590.9 614.1 680.7 771.8	578,3 515,3 615,3 635,6 695,5 779,2
5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.860 29.570	1N 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	994.6 993.2 977.9 924.4 869. 789. 768.6	FT/SEC 578.7 602.7 612.8 637.8 637.8 631.2 7 628.7 609.9	598.4 618.1 645.6 679.7 680.4 675.8 654.9	577.0 577.0 602.5 612.3 637.8 630.9 628.6 609.8 578.2	FT/SEC 794,4 777,6 733.6 626.2 540.8 472.6 441.2 441.9	7/SEC -40.3 24.2 8.7 21.6 10.8	DEUREE 53.01 51.51 48.64 42.64 38.47 34.96 33.97 35.11	DEGREE -4.03 .01 2.26 .78 1.96 .96 1.03	70 - 50 - 10 - 50 - 10 - 51 - 51 - 51 - 51 - 51 - 51 - 51 - 51	95.59 45.59 44.96 47.11 50.20 53.67 56.46 58.29	639,0 645.8 657.4 663.2 719.7 780.9 817.0	77SEC 860.8 861.0 865.3 937.4 986.0 1051.3 1103.7	7/SEC 223,8 186.5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3	775EC -638.6 -615.1 -611.5 -666.9 -757.6 -855.1 -919.8	570.6 570.6 590.9 614.1 680.7 771.8 862.6 929.3	FY/SEC 598,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1
5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.860 29.570	1N 18.580 19.110 19.740 21.600 24.200 26.880 28.900	994.6 993.2 977.9 924.4 869. 789. 768.6	FT/SEC 578.7 602.7 612.8 637.8 637.8 631.2 7 628.7 609.9	598.4 618.1 645.6 679.7 680.4 675.8 654.9	577.0 577.0 602.5 612.3 637.8 630.9 628.6 609.8 578.2	FT/SEC 794,4 777,6 733.6 626.2 540.8 472.6 441.2 441.9	24.2 24.2 8.7 21.6	DEUREE 53.01 51.51 48.64 42.64 38.47 34.96 33.97 35.11	DEGREE -4.03 .01 2.26 .78 1.96 .96 1.03	-20-50 -10-51 -10-51 -10-51 -10-51 -10-51 -10-51	95.59 45.59 44.96 47.11 50.20 53.67 56.46 58.29	639,0 645.8 657.4 663.2 719.7 780.9 817.0	7/SEC 860.8 861.0 865.3 937.4 986.0 1051.3 1103.7	7/SEC 223,8 186.5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3	775EC -638.6 -615.1 -611.5 -666.9 -757.6 -855.1 -919.8	570.6 570.6 590.9 614.1 680.7 771.8 862.6 929.3	FY/SEC 598,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1
5 10 15 30 50 70 85	OTA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28,860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.60 24.200 24.200 26.880 28.900 29.600 30.270	FT/SEC 994.6 993.2 977.5 924.6 864.6 789.7 768.6	FT/SEC 578-1 602-1 612-8 637-8 637-8 7 628-7 7 609-9 578-4 TURN	FT/SEC 598.4 618.1 645.6 679.7 680.4 675.8 654.9 628.6 603.6	FT/SEC, 577.0 602.5 612.3 637.8 630.9 628.6 609.8 578.2 552.3	FT/SEC 794,4 777,6 733.6 626.2 540.8 472.6 441.2 441.9	7/SEC -40.3 24.2 8.7 21.5 10.5 17.4 13.9	DEFREE 53.01 51.51 48.64 42.64 38.47 34.96 33.97 35.11 36.21	05 01 2 02 01 01 01 01 01 01 01 01 01 01 01 01 01	20 - 50 - 10 - 51 - 51 - 51 - 51 - 51 - 51 - 51 - 51	95.59 45.59 44.96 47.11 50.20 53.67 56.46 58.29	7/SEC 639,0 645.8 657.4 663.2 719.7 780,9 817.0 810.5	77SEC 860.8 861.0 865.3 937.4 986.0 1051.3 1103.7	7/SEC 223,8 186.5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3	77/SEC -638.6 -615.1 -611.5 -666.9 -757.6 -855.1 -919.8	570.6 570.6 590.9 614.1 680.7 771.8 862.6 929.3	FY/SEC 598,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1
5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	FT/SEC 994. 993. 977. 924. 869. 768. 748. DEV	FT/SEC 578-1 602-1 5 612-8 631-2 7 628-7 7 609-5 578-4 TURN DEGREE	FT/SEC. 598.4 618.1 645.6 679.7 675.8 628.6 628.6 603.6	577.0 602.5 612.3 630.9 630.9 628.6 609.8 578.2 552.3	FT/SEC 794,4 777,6 733.6 626.2 540.8 472.6 441.2 441.9 442.0	FY/SEC -40.3 24.2 21.5 10.5 17.4 13.9	53.01 51.51 48.64 42.64 38.47 34.96 33.97 35.11 36.21 LOSS-P	05 - 05 - 05 - 05 - 05 - 05 - 05 - 05 -	-20-50 -10-50 -10-51 -1	DESREE 47,90 45,59 47,11 50,20 53,67 56,46 58,29 60,11 OMESA-BI	7/5EC 639,0 645.8 657.4 663.2 719.7 780,9 817.0 810.0 804.5	775EC 860.8 861.0 865.3 937.4 1051.3 1103.7 1108.2 EFF-P	77/SEC 223,8 186,5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3 -531.8	7/SEC -638.6 -611.5 -661.5 -757.6 -757.6 -757.6 -719.6 -719.6	FY/SEC 570.6 590.9 614.1 771.8 852.6 929.3 952.2 973.7	FY/SEC 598,3 615,3 615,5 695,5 779,2 865,5 930,6 953,1 974,7
5 10 15 30 50 70 85 90 95	OTA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28,860 29.570 30.240 INCS	IN 18.580 19.110 19.110 19.210 21.600 24.200 26.880 29.600 29.600 INCM DEGREE 7.31	FT/SEC 994. 993. 977. 924. 824. 768. 768. DEV DEGREE	FT/SEC 578-1 602-1 602-1 631-2 7 628-1 639-5 552-4 TURN DEGREE 57-04	PT/SEC 4 598 4 6145 6 679 4 675 8 628 8 603 6 CAMBER 528 8	FY/SEC, 577.0 602.5 637.6 637.6 630.9 628.6 578.2 552.3 SOLIDTY	FT/SEC 794,4 777,6 626,6 540,6 472,6 441,2 441,2 442,6 0-FAC	FY/SEC -40.3 24.2 21.5 10.5 17.4 13.9	53.01 51.51 48.64 42.64 38.47 34.96 33.97 35.11 36.21 LOSS-P	01-03-01-01-01-01-01-01-01-01-01-01-01-01-01-	720-50 -10-50 -10-51 -1	DESREE 47,90 44,96 47,11 50.20 53,67 56.46 58.29 60.11 OMESA-B	639.0 645.8 657.2 719.7 780.9 810.0 804.5	7/SEC 860.8 861.0 865.3 986.0 1051.3 1103.7 1108.2 EFF-P STATIC 8325	77/SEC 223,8 186,5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3 -531.8 M-1	7/SEC -615.1 -611.5 -616.5 -735.6 -735.6 -735.7 -960.6 M-2	FY/SEC 570-6 570-6 590-9 680-7 771-8 862-6 925-3 973-7 M*=1	FY/SEC 598,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1 974,7 M'-2
5 10 15 30 50 70 85 90 95 \$5	DIA-1 IN 17.720 18.350 19.070 21.140 26.790 28.860 29.570 30.240 INCS DEGREE 3.347	1N . 580 19.110 19.110 19.120 21.600 24.200 26.880 29.600 30.270 1NCM DEGREE 7.31	FT/SEC 994. 997. 997. 924. 869. 768. 748. DEVEL 15.9	FT/SEC 578-1 602-1 602-1 631-2 631-2 7 628-7 637-8 578-4 TURN DEGREE 51-50	PT/SEC 41 598.67 6145.67 6875.66 679.69 6754.86 628.66 60 BERE 50 59.56	FY/SEC, 577.0 602.5 632.3 637.8 630.9 628.6 609.8 578.2 552.3 SOLIDTY	FT/SEC 44 7773.62 540.68 472.62 441.29 441.9 442.0 0-FAC	77.5EC -40.3 24.27 21.6 10.5 10.5 17.4 13.9 0ME6A-8	DEPREE 53.01 51.51 48.64 42.64 38.87 34.96 33.07 35.11 36.21 LOSS-P	01.96 -96 1.96 1.96 1.03 1.72 1.74 LOSB-PP PROFILE .0310	20.501 -20.501 -20.501 -20.501 -20.706	DESREE 97.90 45.59 44.96 47.11 50.20 53.67 56.46 58.29 60.11 OMEGA-BI HOCK .0000 .0000	639.0 645.8 657.4 719.7 780.9 817.0 810.0 810.0 104.5	7/SEC 860.8 861.0 865.3 986.0 1051.3 1103.7 1100.1 1108.2 EFF-P STATICS .8297	7/SEC 223.8 186.5 119.6 -54.5 -231.0 -390.0 -488.1 -510.3 -531.8 M-1	7/SEC -638-6 -615-5 -615-5 -757-6 -757-6 -757-6 -735-7 -735-8 -735-7 -7460-8 -7460-8	FY/SEC 570-6 590-9 614-1 771-8 862-6 929-3 952-2 973-7 M*=1	FY/SEC 598,3 615.3 635.4 695.5 779.2 865.5 930.6 953.1 974.7 M'-2 7378
5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28,860 1NC5 DEGREE 3.35 3.47 2.52	IN 18.580 19.110 19.110 21.600 24.200 28.900 29.600 30.270 INCM DEGREE 7.31 7.72 6.86	FT/SEC 994. 993. 974. 869. 824. 789. 748. DEV DEGREE 12.9 15.9 14.7	FT/SEC 578-1 602-1 602-1 603-2 631-2 7 628-1 552-4 TURN DEGREE 557-04 41-86	PT/SEC 41 598 41 615 67 615 67 675 48 675 68 628 66 628 66 628 66 628 66 628 66 628 66 628 66 628 66 628 66 638 66	FY/SEC, 577.0 602.5 637.8 630.9 630.9 630.9 578.2 552.3 SOLIDTY 2.1079 2.0301 1.7538	FT/SEC 44 797.626.89 626.89 472.625.40 441.29 441.29 558159 .558159	24.7 24.7 24.7 21.5 10.5 17.4 13.9 0ME6A-8 13.27	DE TREE 53.01 51.51 48.64 38.97 35.97 35.11 36.21 LOSS - P 10310 - 0350 - 0172	03 -96 -96 -96 -96 -96 -96 -96 -96	-20-50 -20-50 -10-51 -10-51 -10-51 -10-51 -70 -70-70 -70-70 -70-70 -94-70 -94-70 -94-70	DESREE 47,90 44,96 47,11 50.20 53.67 56.46 58.29 60.11 OMESA-BI HOCK .pood .pood .pood .pood	639.0 645.8 657.2 719.7 780.9 810.0 804.5	7/SEC 860.8 961.0 985.3 937.4 986.0 1051.3 1100.1 1108.2 EFF-P STATIC 8395. 8394.	77/SEC 223,8 186,5 119,6 19,6 19,6 19,6 19,6 19,6 19,6 19,	FY/SEC -638.6 -615.1 -666.9 -757.6 -757.6 -935.7 -960.6 M-2	FY/SEC 570-6 570-6 680-7 771-8 829-3 952-3 973-7 M'-1 .5973 .5923	FY/SEC 3 598,3 615.3 635.6 695.5 779.2 865.5 930.6 953.1 974.7 M'-2 7378 7346 8112
5 10 15 30 50 70 85 90 95 <b>%. SPAN</b> 5 10 16 30 50	OIA-1 IN 17.720 18.350 19.070 23.970 26.790 28,860 29.570 30.240 INC5 DEGREE 3.35 2.52 2.52	IN 18.580 19.110 19.110 21.600 24.200 28.800 29.600 30.270 INCM DEGREE 7.731 7.75 6.86 4.88	FT/SEC 994. 993. 977. 869. 824. 789. 748. DEV DEGREE 12.9 15.9 14.7	FT/SEC 578-1 602-1 602-1 603-2 631-2 7 628-1 7 628-1 552-4 TURN DEGREE 5 51-50 41-36 7 41-36	FT/SEC 41 598-4 6459-6 6780-6 654-9 654-9 623-8 CAMBRE 54 597-07 51-76	FY/SEC, 577.0 6012.3 637.8 638.9 638.9 628.6 578.2 552.3 SOLIDTY 2.1079 2.0301 1.7538	FT/S44,4 77736.25 547977.356.25 54722.2.96 4441.2.90 0-FAC 299 5555815 54955	247 247 215 105 179 139 0MEGA-B 1327 0608	DE REE 53.01 51.54 42.64 38.96 34.96 35.11 36.21 LOSS-P TOTAL 0.0340 0.0340 0.0340 0.0340	05-26 	-20-50 -10-51 -1	DESREE 47,90 44,96 47,11 50.20 53.40 58.29 60.11 OMESA-B HOCK .0000 .0000 .0000	637.4 637.4 657.4 719.7 7817.0 804.5 FF-AD 107.0000 00000 00000	7/SEC.8 860.8 861.0 937.4 108.2 1100.1 1108.2 EFF-P 5TATIS5 .8217 .8314 .9238	77/SEC 223,8 156,5 119,6	-613-6	FY/SEC 570-6 570-6 680-7 771-8 862-6 929-3 973-7 M*-1 .5766 .5837 .6406	FY/SEC 598,3 695,5 695,5 779,2 865,5 930,6 953,1 974,7 M'-2 .7378 .7392 .7446 .8112 .8538
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	OIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE .07 -1.07	IN 5-50 13-510 13-740 13-740 21-600 24-200 28-500 29-600 30-270 INCM DEGREE 7-31 7-31 7-31 4-88 4-88	FT/SEC 994. 993. 924. 924. 824. 768. 768. 0EV DEGREE 12.99. 17.7. 14.7.	FT/SEC 578-1 657-5 602-6 637-5 631-2 7 609-9 6 578-4 TURN DEGREE 552-4 46-36 7 41-86 5 34-01	FT/SEC 44 598.45 61459.46 66459.46 66549.66 66549.66 66549.66 66549.66 66549.66 66549.66 66549.66 66549.66	FY/SEC, 577.0 6012.3 637.8 637.8 630.9 629.8 578.2 552.3 SOLIDTY 2.1079 2.1079 1.9480 1.7538 1.5869	FT/SEC.44 7773.62 540.66 4721.9 4421.9 4421.9 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0 61819.0	7/SEC 33 24-27 21-6 21-6 10-8 17-9 0ME 6A-8 13327 0608 0421	DEWREE 53.01 51.64 2.64 38.97 38.97 35.11 36.21 LDSS-P TOTAL .0340 .0172 .0152	DEGREE -4.03 -01.03 -78 -96 -96 -96 -96 -96 -96 -96 -96 -96 -96	-20-50 -10-51 -1	DESREE 97.99 44.96 47.11 50.20 53.67 56.46 50.21 60.11 OMEGA-BI HOCK .0000 .0000 .0000 .0000	639,0 6457.4 657.4 663.7 719.7	7/SEC. 860.8 865.5 937.4 986.0 1103.7 1100.1 1108.2 EFF-P 57ATIC 8397 8314 9084 9158	77/SEC 223,8 186,5 119,6 -54,5 119,6 -54,5 -231.0 -510.3 -531.8 M-1 .8951 .8760 .8267 .7309	-535.6 -615.1 -615.1 -686.5 -737.6 -735.7 -919.6 -735.7 -735.7 -5273.5 -5273.5 -5456.5	FY/SEC 570-6 570-6 564-1 680-7 771-8 929-3 952-2 973-7 M1 .5766 .5923 .6406 .5923	FY/SEC 3 598,3 615,3 615,3 635,6 799,5 779,2 865,5 793,6 953,1 974,7 M'-2 .7378 .7392 .7446 .8112 .9538 .9201
5 10 15 30 50 70 85 90 95 85 90 95 10 15 30 50 70 85	OIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 3.35 3.47 2.57 2.57	IN 580 18.580 19.110 21.600 24.200 28.900 29.600 30.270 INCM DEORFE 7.31 7.72 6.86 4.88 4.47 3.53 3.571	FT/SEC 994. 993. 924. 924. 824. 768. 768. DEVE 13.7 14.7 13.7 16.8	FT/SEC 578-1 602-8 602-8 6037-8 6037-8 7 609-9 578-4 TURN DESREE 46-36 51-36 534-91 33-39	PT/SEC 41 5987 5987 614596 67546 67546 6286 6286 6286 6286 6286 6286 6286 6286 6396 6496 6596 6286 6396 6496	FY/SEC, 577-0 6012-3 637-8 637-8 639-8 578-2 552-3 SOLIDTY 2.10791 2.10791 1.5488 1.5488 1.5888	FT/36.25 77736.25 547.62 547.36.25 544.1.36 55558 55588 55688 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 5568	7/SEC 33.2 -40.7 24.7 24.7 24.7 24.7 10.8 10.8 10.8 13.9 13.9 13.2 13.2 13.2 10.8 10.8 10.8 10.8 10.8 10.8 10.8 10.8	DETREE 53.01 51.54 42.64 38.97 35.01 36.21 LOSS-P 10310 -0310 -03172 -0111 -0152	DEGREE 3	PORE - 20-50 - 20-51 - 20-55 - 18-55 - 18-70 - 23-70 - 38-70 - 94-56 -	DESREE  47.90  44.94  47.11  50.20  50.46  50.11  OMESA-BI HOCK  0000  0000  0000  0000  0000  0000	639.0 6457.4 667.4 667.4 663.7 719.7 7817.0 810.0 804.5 FF-AD	7/SEC. 860.8 861.0 865.5 937.4 986.0 1051.3 1103.7 1103.7 1108.2 EFF-P STATICS .8297 .8314 .9238 .9158	77/SEC 223,8 186,5 119,6	-613-6	FY/SEC 570-6 570-6 564-1 680-7 771-8 929-3 952-3 952-3 952-3 -5923 -6406 -7265	FY/SEC 598,3 615.3 615.3 635.6 695.5 779.2 865.5 930.6 953.1 974.7 M'-2 .7378 .7346 .8112 .8538 .9201
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	OIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE .07 -1.07	IN 18.580 19.110 19.110 19.740 21.600 24.200 28.900 30.270 INCM DEOREE 7.73 6.86 4.47 3.57 3.57	FT/SEC 994. 997. 924. 927. 869. 824. 768. 748. 15. 15. 14. 17. 13. 17. 16. 16.	FT/SEC 578-1 602-8 602-8 6037-8 6037-8 7 609-9 578-4 TURN DESREE 46-36 51-36 534-91 33-39	PT/SEC 41 598.7 598.7 6145.7 6645.9 6654.9 6654.9 6054.9 6	FY/SEC, 577.0 6012.3 637.8 637.8 630.9 629.8 578.2 552.3 SOLIDTY 2.1079 2.1079 1.9480 1.7538 1.5869	FT/SEC 4/554, FT/SEC 4/554, FT/SEC 4/554, FT/SEC 4/555, FT	7/SEC 33 24-27 21-6 21-6 10-8 17-9 0ME 6A-8 13327 0608 0421	DE TO SE	05-01-01-01-01-01-01-01-01-01-01-01-01-01-	PORE - 20-50 - 20-51 - 20-55 - 18-55 - 18-70 - 23-70 - 38-70 - 94-56 -	50.29 50.45 50.29 50.46 50.46 50.46 50.46 50.46 50.00 50	639,0 6457.4 657.4 663.7 719.7	7/SEC. 860.8 865.5 937.4 986.0 1103.7 1100.1 1108.2 EFF-P 57ATIC 8397 8314 9084 9158	77/SEC 223,8 186,5 119,6 -54,5 119,6 -54,5 -231.0 -510.3 -531.8 M-1 .8951 .8760 .8267 .7309	-535.6 -615.1 -615.1 -616.5 -757.6 -757.6 -735.7 -919.6 -735.7 -925.7 -5273 -5466	FY/SEC 570-6 570-6 680-7 771-8 829-3 952-3 952-3 952-3 -5923 -6406 -7205 -7215	FY/SEC 3 598,3 615,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1 974,7 M*-2 .7378 .7378 .7378 .8112 .8538 .9201 .9548 .9476
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28,860 28,860 INC5 DEGREE 3.357 2.52 -2.57 -1.03	IN 5-50 13-510 13-740 13-740 21-600 24-200 28-500 29-600 30-270 INCM DEGREE 7-31 7-31 6-86 4-88 4-88 5-80	FT/SEC 994. 993. 924. 824. 769. 769. 768. 0EV DEGREE 12.7 14.7 12.7 13.7 17.7	FT/SEC 578-1 612-8 637-8 631-8 7 629-9 6 578-4 TURN DEGREE 5 51-3 7 41-86 5 34-94 33-39 7 34-77	FT/SEC 41 5987 5917 5917 6614596 675486 675486 675486 675486 6777 68777	FY/SEC, 577-0 6012-3 637-8 637-8 637-9 609-8 578-2 552-3 SOLIDTY 2.1079 1.9480 1.7538 1.3869 1.2867 1.2271	FT/S44-1773-6-26-473-6-2-6-6-18-3-9-1-4-1-9-0	24-67 24-67 24-67 21-6 10-8 10-8 17-9 0ME 6A-B -13122 -1322 0432 0505 0741 0801	DERRE 51 51 51 51 51 51 51 51 51 51 51 51 51	DEGREE 3 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 -	720-50 -20-50 -10-51 10-51	DESREE 47.90 44.96 47.11 50.20 53.45 56.45 56.29 60.11 OMESA-B HOCK .0000 .0000 .0000 .0000 .0000 .0000	639,0 6457.4 657.4 663.7 719.7 617.0 610.0	7/SEC.8 861.3 937.4 100.1 1100.1 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.3 100.3 10	7/SEC 223,8 186,5 19,6 -54,5 -231.0 -540,5 -510.3 -531.8 M-1 .8951 .8760 .8267 .7309 .6966 .6754		FY/SEC 570.6 570.6 594.1 771.8 929.3 952.2 973.7 M-1 .5923.6 .6906 .7205 .7035	FY/SEC 3 598,3 615.3 635.4 695.5 779.2 865.5 974.7 M'-2 .7378 .7446 .8112 .85201 .9548 .9476 .9512
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28,860 28,860 INC5 DEGREE 3.357 2.52 -2.57 -1.03	IN 3580 18.580 19.110 21.600 24.200 28.900 29.600 30.270 INCM DEOREE 7.31 7.72 6.86 4.88 4.47 3.571 4.88 4.47	FT/SEC 994. 993. 924. 927. 824. 768. 768. DEV 12.4 15.7 14.7 13.7 17.7 WCOR-	FT/SEC 578-1 602-8 602-8 6037-8 6037-8 7 609-9 578-4 TURN DESREE 46-36 51-36 534-91 33-39	FT/SEC 415545.7566.756.656.856.6654.966654.966654.966654.966659.7	FY/SEC, 577.0 6012.3 637.8 630.9 628.6 639.8 578.2 552.3 SOLINTY 2.1079 2.1079 1.7538 1.5488 1.2587	FT/36.25 77736.25 547.62 547.36.25 544.1.36 55558 55588 55688 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 556888 55688 55688 55688 55688 55688 55688 55688 55688 5568	24-67 24-67 24-67 21-6 10-8 10-8 17-9 0ME 6A-B -13122 -1322 0432 0505 0741 0801	DERRE 51 51 51 51 51 51 51 51 51 51 51 51 51	DEGREE 3 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 -	720-50 -20-50 -10-51 10-51	DESREE 47.90 44.96 47.11 50.20 53.6.6 58.29 60.11 OMESA-81 HOCK .0000 .0000 .0000	639,0 6457.4 657.4 663.7 719.7 617.0 610.0	7/SEC.8 861.3 937.4 100.1 1100.1 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.3 100.3 10	7/SEC 223,8 186,5 19,6 -54,5 -231.0 -540,5 -510.3 -531.8 M-1 .8951 .8760 .8267 .7309 .6966 .6754	FY/SEC -638.6 -611.2 -666.9 -737.6 -735.7 -960.8 M-2 .4960.5277.4963.4741	FY/SEC 570-6 570-6 594-1 771-8 680-7 771-8 929-3 952-3	FY/SEC 3 598,3 615,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1 974,7 M*-2 .7378 .7378 .7378 .8112 .8538 .9201 .9548 .9476
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28,860 28,860 30.240 INC5 DEGREE 3.35 2.57 2.57 -2.57 -1.03	IN 8 580 19 17 10 19 17 10 21 600 24 200 28 900 29 600 30 27 0 INCM DEGREE 7 3 7 2 6 86 4 86 4 86 5 80 NCOR-1	FT/SEC 994. 993. 9977. 924. 824. 768. 768. 768. 12.99. 17.7, 14.7, 14.7, 16.91 17.7, WCORCE	FT/SEC 578-1 578-1 602-8 637-8 6031-8 7 629-9 552-4 TURN DEGREE 51-50 46-38 7 34-51 53-94 54-94	FT/SEC 41 5987 5987 6856 67806 675486 675486 60 BBRE 54 60	FY/SEC, 577.0 6012.3 637.8 637.8 639.8 578.2 552.3 SOLIDTY 2.1079 2.0301 1.7538 1.5488 1.2867 1.2857 1.2258 PO2/	FT/SEC.47773.62547.2973.62547.2.96441.2.9441.2.9441.2.9658159.3.4593.4593.4593.4593.4593.4593.4593.	7 SEC 33 SEC 33 SEC 34 SEC 35	DERREE 53.01 51.54 42.47 38.47 34.07 35.21 36.21 LDSS-P TOTAL 01340 01340 01340 01340 01340 01340 01340 01340 01340	DEGREE 3 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 -	720-50 -20-50 -10-51 10-51	DESREE 47.90 44.96 47.11 50.20 53.45 56.45 56.29 60.11 OMESA-B HOCK .0000 .0000 .0000 .0000 .0000 .0000	639,0 6457.4 657.4 663.7 719.7 617.0 610.0	7/SEC.8 861.3 937.4 100.1 1100.1 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.2 1100.3 100.3 10	7/SEC 223,8 186,5 19,6 -54,5 -231.0 -540,5 -510.3 -531.8 M-1 .8951 .8760 .8267 .7309 .6966 .6754	FY/SEC -638.6 -611.2 -666.9 -737.6 -735.7 -960.8 M-2 .4960.5277.4963.4741	FY/SEC 570.6 570.6 564.1 680.7 771.8 929.3 952.2 973.7 M-1 .59637 .5923 .6426 .7265 .72155 .72155 .74155 .74155	FY/SEC 3 598,3 615,3 615,3 635,6 695,5 779,2 865,5 930,6 953,1 974,7 M'-2 .7378 .7392 .7446 .8112 .9548 .9476 .9512 SLANT-2

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 105% of Design Speed

KOT	'OR								Ü									
W CDAM		DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V0-2	8-1	B-2	B'-1	81-2	V*-1	V1-2			U <b>~1</b>	U=2
% SPAN 5		IN 1 16.030		1241.6					PEGREE (	52.09		-29.83	FT/SEC F 765.3		-443.6			
10	14.100	16.790	637.4	1224.5	637.4	763.6	•0	957.2	.00	51.42	36.79	-27.01	795.9	857.4	-476.7	389.5	476.7	567.7
15 30		17.580 19.910		1184.2			•0		.00	50.11 43.65	38.19 41.91	-22.45 -4,20			-512.9 -618.1	314.3 57.0	512.9 618.1	
50	22.190	23.090	715.5	920,4	715.5	714.3	.0	580.2	.00	39.05	46.33	15.68	1036.9	744.3	-750.3	-200.5	750.3	780.7
70 85		28.610	718.7	786.5 679.6	718.7 710.4		•0		•00	35.74	50.58 53.55		1132.5	780.2	-875-1	-436.5 -570.6	875.1 961.9	887.9 967.4
90		29.410					•0		.00	37.29	54.52		1217.4			-604.9		
95	30-150	30.180	703.3	619,2	703.3	485.8	•0	384.0	.00	38.33	55.40	52,64	1238.5	800.8-	1019.4	-636.4	1019.4	1020.4
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B			P02/		EFF-AD		M=1	M-2	M*-1	M'-2
% SPAN 5	DEGREE -5.57	DEGREE :	SEGREE 6.90			2.4330	1400	.3651	107ALF	ROFILE	P01	TOTAL	101AL SI 8304		5776	1.1574	.7098	.8199
10	-4.70	1.95	4.05			2.2856			.0369		1.6567		.8893	•0000		1.1349	.7415	
15 30	-4.11	2.18	4.43			2.1567			.0313		1.6675	9142	9075	.0000		1.0893	.7743	
50 50	-3.30 -2.22	2•35 2•69	9.5 <u>1</u> 11.14			1.9030	.3842 .4509	.0648 .0889	.0170 .0254		1.6261	.9496 .9132	.9461 .9078	•0000	.6430 .6701	.9577 .8206	.8680	
70	-,53	3.60	13.90	16.51	26,92	1.5335	.4418	,1295	.0350	.0309	1.4261	.8391	8309	.0148	6708	,6944	1.0690	.6888
85 90	•30 •40	3.92 3.89	16.05 17.46			1.4420	.4512 .4618		.0507 .0563		1.3299	.7010 .6409	.6888 .6274	•0242	.6585	= -	1 - 1252	
95	.36	3.69	18.48			1.3890	.4651		.0586		1.2834		.5874	.0273	.6559		1.1425	
		NCOR-1	WC08-1	WC/A-1	T02/	P02/	EFF-AD	CEE-D		_				_	TA-1 61		AAIT-4	SLANT-2
			M/SEC	LBM/SEC		P01	. %	N						3	11A-1 3	-	GREE	
		7749.0			1.1428	1.4930	84.941	85.87							5.0	6.0	86.05	95.02
CI CI A	TV)D																	
STA																		
	DIA-1	DIA-2	V-1 FT/SEC	V~2 FT/S€C	VM-1 FT/SEC	VM-2 FT/SFC	V0-1	V0-2	B-1 DEGREE	B-2	B'-1 DEG <b>R</b> EE	B'-2	V*-1 ET/SEC	V'-2	V0'-1	V01-2	U-1 ET/SEC	U+2 ET/5Ec
%_SPAN 5	DIA-1 IN 17.720	IN 1	FT/SEC 1158.6	FT/SEC 764.7	FT/SEC 747.6	FT/SEC 764.4	FT/SEC 885.1	FT/SEC -12.4	DEGREE 49.81	DEGREE 95	DEGREE -20.93	DEGREE 39.97	FT/SEC I	997.4	FT/SEC 285.9	FT/SEC	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17.720 18.350	18.580 19.110	1158 • 6 1172 • 3	FT/SEC 764.7 795.1	747.6 780.4	FT/SEC 764.4 794.7	FT/SEC 885.1 874.7	FT/SEC -12.4 23.1	DEGRÉE 49.81 48.26	DEGREE 95 1.65	-20.93 -18.05	DEGREE 39.97 38.10	600.5 820.9	997.4 1009.9	FT/SEC 285.9 254.3	FT/SEC -640.6 -623.1	FT/SEC 599.1 620.4	FT/SEC 628.2 646.1
% SPAN 5 10	DIA-1 IN 17.720 18.350 19.070	IN 1	1158 • 6 1172 • 3 1157 • 3	FT/SEC 764.7 795.1 806.4	747.6 780.4 786.9	FT/SEC 764.4 794.7 905.4	FT/SEC 885.1 874.7 838.8	FT/SEC -12.4 23.1 40.5	DEGRÉE 49.81 48.26	DEGREE 95 1.65 2.88	-20.93 -18.05 -13.66	DEGREE 39.97 38.10 37.90	600.5 820.9 821.0	FT/SEC   997.4 1009.9 1020.7	FT/SEC 285.9 254.3 194.0	FT/SEC -640.6 -623.1 -627.0	FT/SEC 599.1 620.4 644.8	FT/SEC 628.2 646.1 667.4
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600	FT/SEC 1158.6 1172.3 1157.3 1079.4 976.1	FT/SEC 764.7 795.1 806.4 787.5 755.4	747.6 780.4 796.9 830.2 800.0	FT/SEC 764.4 794.7 905.4 784.2 752.7	FT/SEC 885.1 874.7 838.8 687.6	FT/SEC -12.4 23.1 40.5 71.8	DEGREE 49.81 48.26 46.45 39.60 34.92	DEGREE 95 1.65 2.68 5.24 4.77	DEGREE -20.93 -18.05 -13.66 1.86	DEGREE 39.97 38.10 37.90 40.02 45.08	600.5 820.9 821.0 832.7 840.2	997.4 1009.9 1020.7 1024.2 1066.7	FT/SEC 285.9 254.3 194.0 -27.2 -251.4	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4	FT/SEC 599.1 620.4 644.8 714.8 810.5	FT/SEC 628.2 646.1 667.4 730.3 818.2
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 .4.200 26.880	FT/SEC 1158.6 1172.3 1157.3 1078.4 976.1 859.5	FT/Scc 764.7 795.1 806.4 787.5 755.4 699.7	747.6 747.6 780.4 796.9 830.2 800.0	764.4 764.7 905.4 784.2 752.7 699.6	685.1 874.7 838.8 687.6 559.0	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2	DEGREE 49.81 48.26 46.45 39.60 34.92 31.01	DEGREE 95 1.65 2.68 5.24 4.77 .61	DEGREE -20.93 -18.05 -13.66 1.86 17.43 32.14	DEGREE 39.97 38.10 37.90 40.02 45.08	600.5 820.9 821.0 832.7 840.2 871.5	77/SEC 997.4 1009.9 1020.7 1024.2 1066.7 1139.5	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6	FT/SEC 599.1 620.4 644.8 714.8 810.5	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 .4.200 26.880 28.900 29.600	FT/SEC 1158-6 1172-3 1157-3 1078-4 976-1 859-5 763-7 731-0	FT/SEC 764.7 795.1 806.4 787.5 755.4 699.7 612.7 571.5	747.6 747.6 780.4 796.9 830.2 800.0 736.5 654.5	764.4 764.4 794.7 905.4 784.2 752.7 699.6 612.7 571.4	FT/SEC 885.1 874.7 838.8 687.6 559.0 443.1 393.5 386.9	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2	DEGREE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.97	UEGREE 95 1.65 2.68 5.24 4.77 .81 .26	DEGREE -20.93 -18.05 -13.66 1.86 17.43 32.12 41.61	DEGREE 39.97 38.10 37.90 40.02 45.08 52.08 757.85	FT/SEC 800.5 820.9 821.0 832.7 840.2 871.5 876.5 872.3	77/SEC 997.4 1009.9 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -991.6	FT/SEC 599.1 620.4 644.8 714.8 810.5 905.8 975.8	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9 977.2 1000.8
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 .4.200 26.880 28.900	FT/SEC 1158-6 1172-3 1157-3 1078-4 976-1 859-5 763-7 731-0	FT/SEC 764.7 795.1 806.4 787.5 755.4 699.7 612.7 571.5	747.6 747.6 780.4 796.9 830.2 800.0 736.5 654.5	764.4 764.4 794.7 905.4 784.2 752.7 699.6 612.7 571.4	FT/SEC 885.1 874.7 838.8 687.6 559.0 443.1 393.5 386.9	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2	DEGREE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.97	UEGREE 95 1 .65 2 .68 5 .24 4 .77 .81 .26	DEGREE -20.93 -18.05 -13.66 1.86 17.43 32.12 41.61	DEGREE 39.97 38.10 37.90 40.02 45.08 52.08 757.85	600.5 820.9 821.0 832.7 840.2 871.5	77/SEC 997.4 1009.9 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -991.6	FT/SEC 599.1 620.4 644.8 714.8 810.5 905.8 975.8	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9 977.2 1000.8
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 .4.200 26.880 28.900 29.600 30.270	FT/SEC 1158-6 1172-3 1157-3 1079-4 976-1 859-5 763-7 731-0 DEV	FT/SEC 764.7 795.1 806.4 787.4 699.7 612.7 571.5 541.3	747.6 747.6 780.4 796.5 830.2 800.6 736.5 654.5 597.2	FT/SEC 764.4 794.7 905.4 784.2 752.7 699.6 612.7 541.1	FT/SEC 885.1 874.7 838.6 687.6 559.2 443.1 393.5 383.0	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 13.4	DEGREE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.07 32.67	DEGREE 95 1.65 2.88 5.24 4.77 .81 .26 .95 1.42	DEGREE -20.93 -18.05 -13.66 1.86 17.43 32.12 41.67 46.95	DEGREE 39.97 38.10 37.90 40.02 55.08 57.85 61.82 OMEGA-B	FT/SEC 600-5 820-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0	997.4 1009.9 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -991.6	FT/SEC 599.1 620.4 644.8 714.8 810.5 905.8 975.8	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9 977.2 1000.8
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .08	18.580 19.110 19.740 21.600 .4.200 26.880 28.900 29.600 30.270	1158-6 1158-6 1172-3 1157-3 1079-4 976-1 859-5 763-7 731-0 709-5 DEV	FT/SEC 764.7 795.1 806.4 787.5 755.4 699.7 612.7 571.5 541.3 TURN DEGREE	FT/SEC 747-6 780-4 796-9 830-0 736-9 654-5 620-2 597-2 CAMBER DEGREE	FT/SEC 764.4 794.7 905.4 784.2 752.7 699.6 612.7 541.1	FT/SEC 885-1 874-7 838-8 589-0 443-1 393-5 386-9 383-0	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2 13.4 OMEGA-B	DEGRÉE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.97 32.67 LOSS-P	0.95 1.65 2.88 5.24 4.77 .81 .26 .95	DEGREE -20.93 -18.05 -13.68 17.43 32.13 41.61 44.67 46.95 PO2/	DEGREE 39.97 38.10 370.90 45.08 57.85 60.05 61.82 OMEGA-B	FT/SEC 000.5 820.9 821.0 832.7 840.2 071.5 876.5 872.3 875.0 EFF-AD TOTAL	997.4 1009.9 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9	77.5EC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -639.5	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -991.6 -1010.1 M-2	FT/SEC 599.1 620.4 644.8 810.8 905.8 975.8 999.8 1022.9	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9 977.2 1000.8 1023.5 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .08	18.580 19.110 19.740 21.600 -4.200 26.880 28.900 29.600 30.270 INCM DEGREE 4.84	FT/SEC 1158-6 1172-3 1157-3 1074-4 976-1 859-5 763-7 7319-5 DEV DEGREE 15-56 17-64	FT/SEC 764.7 795.1 896.4 787.5 755.4 699.7 612.7 571.5 541.3 TURN DEGREE 50.76 46.61	747.6 747.6 747.6 747.6 747.6 800.6 736.5 654.5 654.5 654.5 654.5 654.5 654.5	FT/SEC 764-4 764-4 7905-4 784-2 752-7 699-6 612-7 571-4 SOLIDTY 2-1056 2-0256	FT/SEC 885-1 874-8 687-6 559-0 443-1 393-5 383-0 D-FAC 	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2 13.4 OMEGA-B	DEGRÉE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.07 32.67 LOSS-P TOTAL .0398	DEGREE 95 1.655 2.88 5.24 4.77 .81 .25 .95 1.42 LOSS-P PROFILE .0313	DEGREE -20.93 -18.05 -13.06 17.43 -32.14 41.67 44.69 P02/ -91333	DEGREE 39.97 38.10 37.90 45.08 52.08 57.85 61.82 OMEGA-B HOCK 8 .0338	FT/SEC 600-5 820-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD TOTAL -0000 -0000	997.4 1009.9 1024.2 1066.7 1139.5 1151.4 1145.9 EFF-P STATIC .8247 .7826	285.9 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9 -639.5 M-1 1.0667 1.0715	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -1010.1 M-2 .6598 .6875	FT/SEC 599-1 620-4 644-8 714-8 810-5 905-8 975-8 102-5 M - 1 - 7407	FT/SEC 628.2 667.4 730.3 818.2 977.2 1000.8 1023.5 M*-2 .8696 .8731
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .08	18.580 19.110 19.740 21.600 .4.200 .26.880 28.900 29.600 30.270 INCM DEGREE 4.07	FT/SEC 1158-6 1172-3 1157-3 1074-4 976-1 859-5 763-7 7319-5 DEV DEGREE 15-56 17-64	FT/SEC 764.7 795.1 806.4 787.5 755.4 692.7 511.5 541.3 TURN DEGREE 50.76 43.58	FT/SEC 747-6 747-6 796-9 830-2 800-0 754-5 620-2 597-2 CAMBER DEGREE 62-56 57-17	FT/SEC 764-4 764-4 905-4 784-2 752-7 699-6 612-7 511-1 SOLIDTY 2-1056	FT/SEC 885-1 878-8 687-6 559-0 383-0 D-FAC .5196 .497-3 .497-3	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2 13.4 OMEGA-B .1310 .1614 .1610	DEGRÉE 49.81 48.26 46.45 39.60 34.92 31.01 31.02 31.97 32.67 LOSS-P TOTAL .0311 .0394	DEGREE95 1.655 2.88 5.24 4.77 .81 .95 1.42 LOSS-P PROFILE .0243 .0333	DEGREE -20.93 -18.05 -13.66 17.43 32.14 41.67 44.67 46.95 P02/ P03/ 9183	DEGREE 3 39.97 38.90 37.90 40.02 5.52.85 7.60.05 61.82 0MEGA-B 6HOCK 61.0288 0.0383 0.0383	FT/SEC 000-5 820-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD TOTAL .0000 .0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9 EFF-P STATIC .8247 .7869	285.9 285.9 254.0 -27.2 -251.4 -462.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -898.6 -974.5 -991.6 -1010.1 M-2 .6598 .6992	FT/SEC 599.1 620.4 644.8 714.8 810.5 905.8 975.8 999.8 1022.5 M'-1 .7407 .7506	FT/SEC 628.2 646.1 667.4 730.3 818.2 908.9 977.2 1000.8 1023.5 M*-2 .8636 .8731 .8850
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .08 .03 -3.30 -4.66	IN 18.580 19.110 19.740 21.600 26.880 28.900 29.600 30.270 INCM DEGREE 4.840 4.455 5.87	FT/SEC 1158-6 1172-3 1157-3 1079-4 976-1 859-5 763-7 731-0 709-5 DEV DEGREE 15-56 17-64 18-34 19-29 15-54	FT/SEC 764.7 795.1 806.4 787.5 755.4 699.7 612.7 571.5 541.3 TURN DEGREE 50.76 46.61 43.58 34.36	747.6 747.6 780.4 796.5 830.2 800.2 654.5 620.2 597.2 CAMBER 0EGREE 62.55 59.66 57.17 51.85 44.80	FT/SEC 764.4 794.4 794.2 784.2 784.2 7699.6 612.7 541.1 SOLIDTY 2.1056 2.0256 1.7490 1.5471	FT/SEC 885.1 874.7 687.6 687.6 559.0 443.1 393.5 383.0 D-FAC .5196 .4972 .4773 .43892	FT/SEC -12.4 40.5 71.8 62.9 10.2 2.7 9.2 13.4 0MEGA-B .1310 .1567 .1567	DEGREE 49.81 48.26 46.45 39.60 34.92 31.02 31.02 31.97 32.67 LOSS-P TOTAL .0318 .0318 .0414 .0446	DEGREE95 1.88 5.24 4.71 .26 .95 1.42 PROFILE .0333 .0446	DEGREE -20.93 -13.66 1.36 1.36 1.36 1.36 1.36 1.36 91.67 44.67 46.99 902/ 9033 9165 9183 9183	DEGREE 3 39.97 38.97 37.90 40.02 57.85 61.82 0MEGA-B HOCK 8 0338 0.030 0.000 0.000	670-5 620-5 620-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD -0000 -0000 -0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9 EFF-P STATIC .7826 .7826 .7607 .7486	FTVSEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484 .9714 .8732	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -974.5 -991.6 -1010.1 M-2 .6598 .6863 .6593	FT/SEC 599.1 620.4 644.6 714.8 810.5 975.8 999.8 1022.5 M'-1 .7552 .7552 .7555	FT/SEC 2 628.2 466.1 467.4 730.3 818.9 977.2 1000.8 1023.5 M*-2 8696 .8731 .8855 .9310
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .088 .03 -3.30 -4.66 -6.55	IN 18.580 19.110 21.600 26.880 28.900 29.600 30.270 INCM DEGREE 7 4.64 4.40 1.55 -82	FT/SEC 1158-6 1172-3 1157-3 1078-4 976-1 859-5 763-7 731-0 709-5 DEV DEOREE 15-56 18-34 19-29 15-54 13-71	FT/SEC 764.7 795.4 787.5 787.5 755.4 612.7 571.5 541.3 TURN DEGREE 50.76 43.58 34.36 30.29	FT/SEC 747.6 740.4 796.9 830.2 800.0 736.5 654.5 620.2 597.2 CAMBER 0EGREE 62.55 57.17 51.67 44.83	FT/SEC 764.4 794.4 794.2 784.2 784.2 752.7 612.7 541.1 SOLIDTY 2.0566 2.0566 2.0566 1.5471 1.3865	FT/SEC 885.1 874.7 838.6 687.6 559.0 343.5 343.5 386.9 383.0 D-FAC .5196 .4773 .4304 .38670	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2 13.4 0MEGA-B .1310 .1614 .1567 .1327 .1327	DEGREE 49.81 48.64 49.61 49.64 49.65 39.60 34.92 31.97 32.67 LOSS-P TOTAL .0311 .0446 .0446 .0426	DEGREE95 1.88 5.24 4.77 .85 1.42 LOSS-P PROFILE .0333 .0443 .0427	DEGREE -20.93 -18.66 -13.66 1.86 17.43 32.14 41.67 44.67 46.99 PO2/ PO1/ PO1/ PO1/ PO1/ PO1/ PO1/ PO1/ PO1	DEGREE 3 39.97 38.97 9 40.02 45.08 5 52.08 7 57.85 6 61.82 0MEGA-B 8 +0288 9 .0338 9 .0000 9 .0000	670-5 620-9 821-9 821-9 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD TOTAL 0000 0000 0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9 EFF-P STATIC .7869 .7607 .7486 .74	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -962.7 -582.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484 .9714 .7422	FT/SEC -640.6 -623.1 -623.1 -658.5 -755.4 -898.6 -974.5 -991.6 -1010.1 M-2 .6598 .6875 .6992 .6863 .6593	FT/SEC 599.1 620.4 644.8 714.8 810.5 905.8 975.8 975.8 1022.5 M'-1 .7508 .7557 .7558	FT/SEC 628.2 667.4 730.3 818.9 977.2 1000.8 1023.5 M+-2 .86.31 .8850 .8925 .9960
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.860 29.570 30.240 INCS DEGREE .08 .58 .58 .53 -4.66 -6.57 -4.86	IN 18.580 19.110 19.740 21.600 26.880 28.600 30.270 INCM DEGREE 7 4.84 4.40 1.55 .8742 7.74	FT/SEC 1158-6 1178-3 1157-3 1078-4 976-1 859-5 763-7 731-0 709-5 DEV DEGREE 15-56 17-64 18-34 19-29 15-54 13-71 15-32 16-66	FT/SEC 764.7 786.4 787.5 755.4 612.7 571.5 541.3 TURN PEGREE 43.58 34.56 34.56 34.36 34.36	747.6 747.6 780.2 830.2 800.6 736.5 654.5 620.2 597.2 CAMBER 0EGREE 62.55 57.17 51.87 44.80 44.33	FT/SEC 764.4 794.4 794.2 784.2 784.2 7699.6 612.7 541.1 SOLIDTY 2.1056 2.0256 1.7490 1.5471	FT/SEC 885.1 874.7 834.8 687.6 559.0 143.5 343.5 386.9 383.0 D-FAC .5196 .4773 .4304 .3892 .3564	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 2.7 9.2 13.4 0MEGA-B .1610 .1567 .1787 .0787	DEGREE 49.81 48.64 46.45 39.60 34.92 31.02 31.97 32.67 LOSS-P TOTAL .0311 .0446 .0427 .0229	DEGREE95 1.656 5.24 4.7726 .95 1.42 LOSS-P ROFILE .0333 .0443 .0427 .0329	DEGREE -20.93 -18.05 -13.05 -1	DEGREE 3 39.97 38.90 37.90 40.02 45.08 57.85 7 60.05 61.82 0MEGA-B 61.0288 61.0288 61.0313 61.000 61.000 61.000 61.000 61.000 61.000	FT/SEC 800-5 820-9 821-0 832-7 840-2 871-5 872-3 875-0 EFF-AD IOIAL .0000 .0000 .0000 .0000 .0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9 EFF-P STATIC .8247 .7869 .7607 .7486 .81773	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -582.3 -612.9 -639.5 M-1 1.0667 1.0714 .9714 .8732 .76429	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -974.5 -991.6 -1010.1 M-2 .6578 .6578 .6992 .6863 .6593	FT/SEC 599.1 6204.6 714.8 810.5 905.8 975.8 999.8 1022.5 M'-1 .7407 .7508 .7573 .7573	FT/SEC 628.2 646.14 646.14 730.3 818.5 977.2 1000.8 1023.5 M*-2 86.96 .8850 .8925 .9310 .9960 1.0002
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .08 .58 .58 .53 -3.30 -4.66 -55.73	IN 18.580 19.110 19.740 21.600 26.880 28.600 30.270 INCM DEGREE 7 4.84 4.40 1.55 .8742 7.74	FT/SEC 1158-6 1178-3 1157-3 1078-4 976-1 859-5 763-7 731-0 709-5 DEV DEGREE 15-56 17-64 18-34 19-29 15-54 13-71 15-32 16-66	FT/SEC 764.7 786.4 787.5 755.4 612.7 571.5 541.3 TURN PEGREE 43.58 34.56 34.56 34.36 34.36	747.6 747.6 780.2 830.2 800.6 736.5 654.5 620.2 597.2 CAMBER 0EGREE 62.55 59.6 151.8 144.8 44.8 44.8 45.33	FT/SEC 764.4 794.4 794.2 784.2 752.7 692.7 571.4 541.1 SOLIDTY 2.1056 2.056 1.9420 1.7490 1.5465 1.2866	FT/SEC 885.1 874.7 834.8 687.6 559.0 443.3 393.5 383.0 D-FAC .5196 .4977.3 .4304 .36704 .4239	FT/SEC -12.4 23.1 71.8 62.9 10.2 2.7 9.2 13.4 0MEGA-B .1310 .1567 .1327 .0847 .1025	DEGREE 49.81 48.64 46.45 39.60 34.92 31.02 31.07 32.67 LOSS-P TOTAL .0311 .0398 .0414 .0427 .0284 .0349	DEGREE95 1.688 5.24 4.77 8.26 9.95 1.43 9.0243 9.03436 9.0427 9.03496 9.0408	DEGREE -20.93 -18.66 -13.66 -13.66 -17.43 -41.67 -46.99 -9333 -9165 -9176 -9776 -9776	DEGREE 39.97 38.97 37.90 40.02 45.08 52.08 52.08 52.08 61.82 0MEGA-B HOCK 288 0.0313 0.0000 0.0000 0.0000 0.0000	FT/SEC 000-5 820-9 821-0 832-7 840-2 671-5 876-5 872-3 875-0 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.4 1144.7 1145.9 EFF-P STATIC .8247 .7826 .7869 .7607 .7486 .8149 .7973 .7699	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -582.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484 .9714 .8732 .7642 .6423	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -974.5 -991.6 -1010.1 M-2 .6598 .6892 .6863 .6593 .6123 .4945	FT/SEC 599.1 6204.6 810.5 905.8 975.8 975.8 1022.5 M'-1 .750. .7555 .7768 .7768	FT/SEC 2628.2 1 667.4 730.3 818.2 908.9 1000.8 1023.5 M*-2 8696.1 8850 8925 99310 19002 19005
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.860 29.570 30.240 INCS DEGREE .08 .58 .58 .53 -4.66 -6.57 -4.86	IN 18-580 19-110 19-740 21-600 26-880 28-900 29-600 30-270 INCM 19-55 -87 -9-77 1-74 2-25 NCOR-1	FT/SEC 1158-6 1178-3 1157-3 1078-4 976-1 976-1 763-7 731-0 709-5 DEV DEGREE 15-56 17-64 18-34 19-29 15-54 13-71 15-32 16-66 17-75 wcor-1	FT/SEC 764.7 765.4 787.5 755.4 612.7 571.5 541.3 TURN DEGREE 50.76 43.59 34.36 30.15 30.26	747.6 747.6 780.2 830.2 800.6 736.5 654.5 620.2 597.2 CAMBER PEGREE 62.55 57.6 51.8 44.8 45.33 45.99	FT/SEC 764.4 794.4 794.2 784.2 752.7 692.7 571.4 2.1056 2.1056 2.10420 1.7490 1.5471 1.2860 1.2554	FT/SEC 885.1 874.7 838.6 687.6 559.0 443.1 343.5 386.9 383.0 D-FAC .5196 .4773 .4304 .4239 .4492	FT/SEC -12.4 23.1 71.8 62.9 10.2 2.7 9.2 13.4 0MEGA-B .1310 .1567 .1327 .0847 .1025	DEGREE 49.81 48.64 46.45 39.60 34.92 31.02 31.07 32.67 LOSS-P TOTAL .0311 .0398 .0414 .0427 .0284 .0349	DEGREE95 1.688 5.24 4.77 816 95 1.42 LOSS-P ROFILE 00431 00446 00408 00408	DEGREE -20.93 -18.66 -13.66 -13.66 -17.43 -41.67 -46.99 -9333 -9165 -9176 -9776 -9776	DEGREE 39.97 39.97 37.90 40.02 45.08 57.85 60.05 61.82 0MEGA-B HOCK 0.0338 0.0300 0.0000 0.0000	FT/SEC 800-5 820-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.5 1154.7 1145.9 EFF-P STATIC .7869 .7607 .7486 .7973 .7699 .7508	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484 .9714 .8732 .6423 .6217	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -991.6 -1010.1 M-2 .6598 .6598 .6598 .6166 .5323 .4945 .4668	FT/SEC 599.1 620.4 644.8 714.8 810.5 975.8 975.8 975.8 1022.5 N'-1 .7407 .7555 .7766 .7773 .7666 .7734	FT/SEC 2 628.2 4667.4 5 730.3 818.9 977.2 1000.8 1023.5 M*-2 86.9 6 .8731 .8825 .9310 .99002 .9905
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.860 29.570 30.240 INCS DEGREE .08 .58 .58 .53 -4.66 -6.57 -4.86	IN 18-580 19-110 21-600 24-890 29-600 30-270 INCM 4-405 -57 1-75 NCR-1 RPM	FT/SEC 1158-6 1172-3 1079-4 976-1 859-5 763-7 731-0 709-5 DEV DEGREE 15-56 18-34 19-29 15-32 16-66 17-75 WCOR-1 BM/SEC	FT/SEC 764.7 765.4 787.5 787.5 612.7 571.5 541.3 TURN DEGREE 50.76 43.58 34.36 30.12 31.25 WC/A-1 LBM/SEC	FT/SEC 747.6 747.6 736.5 830.2 800.0 736.5 654.5 650.2 597.2 CAMBER 0EGREE 62.5 57.17 94.8 44.33 45.33 45.32 702/	FT/SEC 764.4 779.5.4 7905.4 784.2 752.7 6612.7 541.1 SOLIDTY 2.10566 2.10566 1.2866 1.2854 1.22571 P02/ P01	FT/SEC 885.1 874.7 838.6 687.6 559.0 443.1 393.5 386.9 383.0 D-FAC .5196 .4773 .4304 .4239 .4492 EFF-AO	FT/SEC -12.4 23.1 40.5 71.8 62.9 10.2 7.9.2 13.4 0MEGA-B .1610 .1610 .1567 .0787 .0847 .1025 .1186	DEGREE 49.81 48.64 46.45 39.60 34.92 31.02 31.07 32.67 LOSS-P TOTAL .0311 .0398 .0414 .0427 .0284 .0349	DEGREE95 1.688 5.24 4.77 816 95 1.42 LOSS-P ROFILE 00431 00446 00408 00408	DEGREE -20.93 -18.66 -13.66 -13.66 -17.43 -41.67 -46.99 -9333 -9165 -9176 -9776 -9776	DEGREE 39.97 39.97 37.90 40.02 45.08 57.85 60.05 61.82 0MEGA-B HOCK 0.0338 0.0300 0.0000 0.0000	FT/SEC 800-5 820-9 821-0 832-7 840-2 871-5 876-5 872-3 875-0 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	997.4 1009.7 1020.7 1024.2 1066.7 1139.5 1151.5 1154.7 1145.9 EFF-P STATIC .7869 .7607 .7486 .7973 .7699 .7508	FT/SEC 285.9 254.3 194.0 -27.2 -251.4 -462.7 -582.3 -612.9 -639.5 M-1 1.0667 1.0715 1.0484 .9714 .8732 .6423 .6217	FT/SEC -640.6 -623.1 -627.0 -658.5 -755.4 -991.6 -1010.1 M-2 .6598 .6598 .6598 .6166 .5323 .4945 .4668	FT/SEC 599.1 620.4 644.8 810.5 905.8 975.8 999.8 1022.5 M'-1 .7505 .7573 .7573 .7666 .7666 .7666	FT/SEC 628.2 666.1 666.1 730.3 818.9 977.2 1000.8 1023.5 M*-2 .8636 .8925 .9310 .9960 .9905 .983 SLANT-2

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 105% of Design Speed

ROT	'OR						105%	of De	sign S	peed								
% SPAN		D1A-2	V-1 FT/SEC	Y=2 FT/SEC	VM-1	VM-2 FT/SFC	VO-1	YO-2	B-1 DEBREE (	8-2 SEGREF (	B'-1	B'-2 DEGREE	FY/SEC	VI-2	FT/SEC (	V01-2	FT/SFC	u~2 FT/SEc
5	13.120	16.030	621.8	1198.4	621.B	730.1	.0	950.3	.0g	52.46	<b>35.</b> 5n	-29.22	763.7	836.7	-443.5	408.5	447.5	541.6
10 15		16.790 17.580		1179.9 1143.0	635.5 64 <b>9.8</b>		.0	921.1 871.4	.00	51.32 49.67		-25.60 -20.51			-476.6 -412.8	353.5 277.2		
30		19.910		1033.1			.0	723.0	.00	44.39	42.01				-617.9	50.0	617.9	
50 70		23.090	712.4 716.2		712.4		.0	597.9 484.6	.00	40.73 37.73	46.45 50.67		1034.7		-750.1 -874.8		750.1 874.8	
85		28.610	708 - 6		708.6		.0	427.8	.00	38.48	53.61		1194.6		-961.7			
90 95		30.180	705.1 702.0	655.4 633.7	7 <sub>0</sub> 5.1 7 <sub>0</sub> 2.0		.0	421.5 417.4	.00	40.0	54.57 55.44		1216.3 1237.5		-991.1 -1 <sub>0</sub> 19.1		991.1 1019.1	
* CDAN	INCS	INCM	DEV	TURN	CAMBER	SCLIDTY	D-FAC	NEGA-B					EFF-AD		V-1	M-2	M*-1	M*-2
5	-5.50	DEGREE (	7.52	DEGREE	DEGREE 70.87	2.4329	.1857	.2795	TOTAL P	ROFILE	1.5776		TOTAL S	*8000 HOCK	.5758	1.1101	.7982	.7750
10	-4.63		5+47	62.46	65.95	2.2855	.2459	-16A0	0332	.0332	1.6353	.9059	.8990	.0000	.5904	1.0874	.7400	.7539
15 30	-4.03 -3.19	2·26 2·46	6•37 9•89			2.1565	.3068 .4105	• 1155 • 0454	•0251 •0119		1.6306		.9244	.0000		1.9468 .9326	.7726 .8656	.7240 .6695
50	-5'15	2.80	10.21	31.70	39.14	1.6883	4.4787	.0677	.0194	4910.	1.5787	.9355	9313	0000	.5669	.8145	.9764	.6398
70 85	46 •35	3•68 3•97	12.55 15.13		26.92 19.74	1.5336	.4801 .4860	•1191 •1937	•0327 •0475	.0205	1.4765	.8619 .7449	.8542 .7331	.0148	.6602		1.0565	.6567 .6645
90	.44	3.93	16.49	5,79	18.32	1.4148	.4963	. 2282	• 0532	.0467	1.3542	. 6929	.6794	.0273	.6572	.5688	1.1409	.6611
95	.46	3.74	17•49	3,79	17.40	1 • 3890	.5004	. 2506	•05•0	.0496	1.3430	.6576	.6431	.0309	.6546		1.1575	.6649
			BM/SEC	WC/A-1 LBM/SEC		P02/ P01	EFF_AD	EFF-P %						.5	STA-1 51		LANT-1 S EGREE S	
		7746 • 0	188-43	SQFT 3 42.49	1.1470	1.5233	86+887	88-14							5 • 0	6.0	86.05	95.02
STA	TOR																	
	DIA-1	DIA-2	V-1	V-2	VM-1		V0-1	V0-2	<b>8</b> -1	6-2	81-1	11-5	V!-1	V4-2	<u> </u>	V01-2	<u>U-1</u>	U=2
STA	DIA-1	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	TISEC	DEGREE	DEBREE	DEVREE	DESMEE	FT/SEC	FT/EC	FT/SEC	FY/SEC	FT/SEC	FT/SEC
% SPAN 5 10	DIA-1 IN 17.720 18.350	IN 18.580 19.110	FT/SEC 1110.1 1120.2	FT/SEC 679.7	FT/SEC 703.2 737.4	FT/SEC 679.3 704.5	65A.9 642.7	**************************************	50.69 48.79	0 <b>EBREE</b> 30 34	-29.2 -29.2	DEGREE .42.90	749.8 770.8	FT/全C 927.5 928.4	260.0 282.5	-631.8 -604.7	FY/SEC 599.0 620.3	FT/SEC 628.0 646.0
% SPAN	DIA-1 IN 17.720 18.350 19.070	IN 18.580 19.110 19.740	FT/SEC 1110.1 1120.2 1108.3	FT/SEC 679.7 705.6 724.5	703.2 737.9 762.0	FT/SEC 679.3 704.5 722.4	656.9 642.7 804.5	-3.2 -3.2 41.3 55,2	50.69 48.79 46.55	0 <b>EBREE</b> 30 3.34 4.37	DEUREE -29,29 -16,71 -11,8	DESMEE   42.90   40.64   40.27	77/SEC 749.8 770.8 779.2	927.5 927.5 928.4 946.8	260.0 282.5 159.9	-631.8 -604.7 -612.1	FT/SEC 599.0 620.3	FT/SEC 628.0 646.0 667.2
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.600	FT/SEC 1110.1 1120.2 1108.3 1050.6	FT/SEC 679.7 705.6 724.5 746.6 730.3	703.2 703.2 737.9 762.0 709.0	FT/SEC 679.3 704.5 722.4 745.1 728.2	656.9 642.7 804.5 681.1 576.1	77/SEC -3.2 41.3 55.2 46.8 55.3	50.49 48.79 46.55 40.40 36.31	0EGREE 30 3.34 4.37 3.59	DEUREE -20,2( -16,7) -11,8( 2,3) 16,6)	DEGMEE   .42.90   40.64   40.27   42.51   46.31	749.8 770.8 770.8 779.2 802.1 819.2	927.5 927.5 928.4 946.8 1011.1 1054.7	260.0 222.5 159.9 -33.5	FY/SEC -631.1 -604.7 -612.1 -683.4 -768.7	FT/SEC 599.0 620.3 644.6 714.6	FT/SEC 628.0 646.0 667.2 730.1
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	IN 18.580 19.119 19.740 21.600	FT/SEC 1110.1 1120.2 1108.3 1050.6 972.6	FT/SEC 679.7 705.6 724.5 746.6 730.3	703.2 703.2 737.9 762.0 799.6 783.5 718.6	FT/SEC 679.3 704.5 728.4 745.1 728.2 662.8	656.9 656.9 652.7 804.5 681.1 576.1 475.4	FT/SEC -3.2 41.3 55.2 46.8 55.3 22.6	50.69 50.69 50.79 50.55 40.50 36.31	0E	2.31 16.61 30.69	DEGREE 9 .42.90 40.64 40.27 42.51 46.31	779.8 770.8 779.2 802.1 819.2	927.5 928.4 946.8 1011.1 1054.7 1107.1	77,5EC 260.0 222.5 159.9 -33.5 -234.1	FY/SEC -631.8 -604.7 -612.1 -683.4 -762.7 -886.0	FT/SEC 2 599.0 7 62n.3 644.6 714.6 7 810.2	FT/SEC 628.0 646.0 667.2 730.1 818.0 908.6
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 19.580 19.119 19.740 21.600 24.200 26.880 28.900	FT/SEC 1110.1 1120.2 1108.3 1050.6 972.6 861.7 764.2	FT/SEC 679.7 705.6 724.5 746.6 730.3 765.2 559.1	703.2 737.4 762.0 762.0 799.6 718.6 635.7	FT/SEC 679.3 704.5 728.4 745.1 728.2 662.8 568.9	FT/SEC 65A.9 642.7 804.5 681.1 576.1 475.4 424.2	FY/SEC -3.2 41.3 55.2 46.8 55.3 22.6 14.0	50.69 48.79 46.55 40.40 36.31 33.42 33.72	DEGREE 	28,24 -16.71 -11.84 2.31 16.61 30.84 40.94	024M2E -42.90 -40.44 -40.27 -42.51 -44.31 -53.14 -59.34	77/5EC 749.6 770.8 779.2 802.1 819.2 839.2 841.9	927.5 928.4 946.8 1011.1 1054.7 1107.1 1116.9	77/5EC 240.0 222.5 159.9 -33.5 -234.1 -430.1 -551.3	FY/SEC -631.8 -604.7 -612.1 -683.4 -768.7 -886.0 -960.9	FT/SEC 599.0 620.3 644.6 714.6 905.6 975.5	FT/SEC 628.0 646.0 667.2 730.1 818.0 908.6 976.9
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 18.580 19.110 19.740 21.600 24.200 26.860 28.900 29.600 30.270	FT/SEC 1110.1 1120.2 1108.3 1050.8 972.6 861.7 764.2 714.4	FT/SEC 679.7 705.6 724.5 746.6 730.2 663.2 559.1 506.9	FT/SEC 703.2 737.9 762.0 749.6 783.7 635.7 635.7	FT/SEC 679.3 704.5 722.4 745.1 728.2 662.8 563.9 531.7	7/5/2 856.9 852.7 804.5 681.1 5/6.1 475.4 424.2 416.3	77/SEC -3.2 41.3 55,2 46.8 55.3 22.6 19.9 22.4	50.69 50.69 50.69 50.79 46.85 40.40 36.31 33.48 33.79 35.64	0E	2.37 16.67 2.37 16.67 2.37 16.67 30.69 40.91 40.91	00 42.90 40.42.90 40.27 42.51 46.31 53.14 59.34	77/5EC 749.6 770.8 779.2 802.1 819.2 839.2 841.9	927.5 928.4 946.8 1011.1 1054.7 1107.1 1116.9	77/5EC 240.0 222.5 159.9 -33.5 -234.1 -430.1 -551.3	FY/SEC -631.8 -604.7 -612.1 -683.4 -768.7 -886.0 -960.9	FT/SEC 599.0 620.3 644.6 714.6 905.6 975.5	FT/SEC 628.0 646.0 667.2 730.1 818.0 908.6 908.6 1000.5
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 23.1970 26.790 28.860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 1110.1 1120.2 1108.3 1050.6 972.6 861.7 764.2 733.9	FT/SEC 679.7 705.6 724.5 746.6 730.2 663.2 559.1 506.9	FT/SEC 703.2 737.9 762.0 799.8 718.6 635.7 602.6	FT/SEC 679.3 704.5 728.4 745.1 728.2 662.8 568.9	7/5/2 856.9 852.7 804.5 681.1 5/6.1 475.4 424.2 416.3	77/SEC -3.2 41.3 55,2 46.8 55.3 22.6 19.9 22.4	50.69 48.79 46.85 40.40 36.31 33.48 33.72 34.79 35.64	0E-REE 30 3.34 4.37 3.59 4.34 1.94 1.62 2.53	28.29 -16.71 -11.86 2.31 16.61 30.89 40.91 43.92 46.22	DESMEE 9 .42.90 3 .40.64 5 .40.27 7 .42.53 6 .53.14 6 .53.14 6 .53.14 6 .53.14 6 .53.14 6 .53.14	77/52C 749.8 770.8 779.2 802.1 819.2 839.2 841.9 839.2 EFF-AD	927.5 927.5 928.4 946.8 1011.1 1054.7 1107.1 1116.9 1115.8	77/5EC 240.0 222.5 159.9 -33.5 -234.1 -430.1 -551.3	FY/SEC -631.8 -604.7 -612.1 -683.4 -768.7 -886.0 -960.9	FT/SEC 599.0 620.3 644.6 714.6 905.6 975.5 999.5	FT/SEC 628.0 646.0 667.2 730.1 818.0 908.6 976.9
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 30.240 INCS DEGREE .89	IN 18.580 19.119 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 4.85	FT/SEC 1110.1 1120.2 1108.3 1050.6 972.6 861.7 764.2 733.9 714.4 DEV	FT/SEC 679.7 724.5 724.5 746.6 730.3 7663.2 559.1 506.9 TURN DEGREE	713.2 737.9 742.0 743.8 718.6 635.7 602.6 580.4 CAMBER DEGREE 62.55	FT/SEC 679.3 728.4 745.1 728.2 662.8 531.7 506.4 SOLIDTY	######################################	FY/SEC -3.2 41.3 55.2 46.8 52.6 19.9 22.4	50.49 48.79 46.85 40.40 34.31 33.48 33.72 34.79 35.64 LOSS-P TOTAL		28.2( -16.7) -11.8( 2.31 30.8( 40.9) 45.9( 46.2) POIS.	DESMEE .42.90 3.40.64 5.40.51 7.42.51 5.53.11 5.53.11 6.53.	749.8 770.8 770.8 802.1 819.2 839.2 837.5 837.5 839.2 EFF-AD TOTAL	7/12C 927.5 928.4 946.8 1011.1 1059.7 1115.8 1121.7 STATIC .8281	77/5EC 260.0 282.5 159.9 -33.5 -234.1 -430.1 -551.3 -5605.9 M-1	FY/SEC -631.3 -604.7 -612.1 -663.4 -762.7 -886.0 -960.4 -980.7 -1000.8 M-2	FY/SEC 599.0 620.3 644.6 714.6 705.5 995.5 1022.8 M'-1	FT/SEC 628.0 646.0 647.2 730.1 818.0 908.6 976.9 1000.5 1023.2 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	IN 18.580 19.119 19.740 21.600 26.880 26.800 29.600 30.270 DEGREE 4.85	FT/SEC 1110.1 1120.3 1108.3 108.3 108.3 972.6 861.7 773.9 714.4 DEV	FT/SEC 679.7 7054.5 7744.5 746.6 730.3 7663.2 5532.1 506.9 TURN DEGREE 9545.45	FT/SEC 703.2 737.2 737.3 749.6 718.6 635.7 602.6 602.6 CAMBER DE60.ES	FT/SEC 679.3 704.4 704.5 704.6 704.6 704.6 705.1 706.8 504.8 504.8 504.8 504.8 504.8 504.8 504.8 504.8 504.8 504.8	# # # # # # # # # # # # # # # # # # #	FY/SEC -3.2 41.3 55.2 45.3 28.6 16.0 19.9 22.4 0MESA-8	50.49 48.79 46.85 40.40 34.31 33.72 34.79 35.64 LOSS-P TOTAL .033.	30 3-34 4-37 3-59 4-34 1-62 2-16 2-15 LOSS=P PROFILE 0349	DEGREE -28,2( -16.7) -11.8( 2.3) 16.6( 30.8( 40.9) 45.2( POI S. .918(	DESIRE .42.90 .40.64 .40.51 .42.51 .53.11 .53.11 .53.11 .53.11 .53.11 .63.13 .63.14	779.8 770.8 770.8 802.1 819.2 839.2 837.5 837.5 877.5 837.5	PT/\$2C 927.5 928.4 946.8 1011.1 1059.7 1116.9 1115.8 1121.7 A. C.	77/5EC 260.0 282.5 159.9 -33.5 -430.1 -551.3 -561.9 H-1 1.0130 1.0186	FY/SEC -631.2 -604.7 -612.1 -612.1 -612.7 -866.0 -960.9 -980.7 -1000.8 M-2 .5827 .6062	FY/SEC 599.0 620.0 714.6 714.6 719.2 905.6 919.2 M-1 .6878	FT/SEC 628.0 644.0 667.2 730.1 818.0 976.9 1000.5 1023.2 N*-2
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .89 .88 .39	IN 18.580 19.119 19.119 19.740 21.600 24.200 26.860 30.270 INCM DEGREE 4.85 5.14 7.73 2.53	FT/SEC 1110.1 1120.3 1108.3 1050.8 972.6 86.1.7 764.2 733.9 714.4 DEV DEGREE 16-20 19-31 19-62	FT/SEC 679.7 679.7 724.5 724.5 746.6 730.3 7569.1 506.9 108.0 108.	FT/SEC 703.2 703.2 703.2 709.8 709.8 709.8 603.5 602.6 580.6 62.55 54.61 57.11 57.11	FT/SEC 5 679.3 679.5 728.4 745.1 728.2 662.8 5531.7 506.4 SOLIDTY 2.1069 2.0280 1.9451 1.7510	### ### ### ### ### ### ### ### ### ##	752C -3.2 41.3 55.2 66.8 55.3 22.6 14.0 17.9 22.4 0MEs A - B .1686 .1587 .0921	50.49 50.49 50.49 50.40 50	0ESREE 30 3-34 4-37 3-59 4-24 1-94 2-16 2-53 LOSS-P PROFILE 0343 0343	DEGREE -28,22 -26,2 -11,4 -2,3 -16,6 -30,6 40,9 46,2 -902/ -901 S -932 -918 -959	DESINEE . 42.90 . 40.64 . 40.27 . 42.51 . 53.14 . 53.14 . 63.16 . 0249 . 0249 . 0249 . 0249 . 0249 . 0249	779.8 770.8 770.8 770.8 802.1 819.2 831.5 831.5 837.5 839.2 EFF-AD 107AL .0000 .0000	7/32C 927.5 926.8 1011.1 1054.7 1107.9 1115.8 1121.7 EXATIC .8281 .9281 .8440	FY/SEC 240.0 229.9 159.9 -33.5 -234.1 -501.3 -501.0 -605.9 M-1 1.0136 1.0034 .9474	FY/SEC -631.8 -603.1 -631.8 -603.4 -768.7 -886.0 -980.5 -980.5 -980.5 -980.5 -6062 -624.6 -624.6 -624.6 -624.6 -624.7	FT/SEC 2 599.0 7 624.6 714.6 810.2 905.5 905.5 1022.8 M - 1 .6878 .7045 .7045 .7045	FT/SEC 628.0 646.0 667.2 730.1 818.0 976.6 976.5 1023.2 N+-2 .7951 .7951 .7954 .8172
% SPAN 5 10 15 30 50 70 85 90 95 \$2 \$PAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .88	IN 18.580 19.110 19.740 21.600 24.200 20.29.600 30.270 INCM DE GREE 4.85 5.14 4.73 2.53 2.29	FT/SEC 1110.1 1120.3 1100.8 1100.8 972.6 861.7 764.2 733.9 714.4 DEV DEGREE 16.20 19.31 19.82 17.60 17.60	FT/SEC 679.7 705.7 724.5 746.6 750.3 7653.7 559.1 506.9 TURN DEGREE 9 50.45 42.16 31.96	FT/SEC 703.2 703.2 737.3 742.0 799.8 713.6 535.7 602.8 580.4 CAMMER DEGREE 57.11 57.11	FT/SEC 679.3 704.6 728.4 745.1 728.2 662.8 568.9 531.7 506.4 SOLIDTY 2.1069 2.0280 1.7510 1.5471	FT   SEC   9   658.7   9   681.1   1   1   1   1   1   1   1   1   1	752C -3.2 45.3 46.8 -35.3 22.6 0.17.9 22.4 0MESA-B -1686 -15721 -0921	50.59 50.59 50.59 40.55 40.50 33.51 33.72 34.79 35.64 LOSS-P TOTAL 00333 0415 0404 0262 0196	0E-REE 30 3-34 4-37 3-59 4-34 1-62 2-53 LOSS-P PROFILE 0274 0349 -0194	DEGREE -89,2 -16,7 -11,7 -16,6 30,4 40,9 46,2 POI \$ .932 .918 .952 .956	DESIZE - 42.90 - 40.87 - 42.53 - 53.36 - 53.36 - 53.36 - 53.36 - 63.36 - 63	779.2 779.8 779.2 802.1 839.2 841.9 837.5 841.9 637.5 0000 0000	927.5 928.6 1011.1 1059.7 1116.9 1115.6 1121.7 8 8 8 1011.1 110.9 1115.6 1121.7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	FY/SEC 240.0 229.9 159.9 -33.5 -234.1 -501.3 -501.0 -605.9 M-1 1.0136 1.0034 .9474	FY/SEC -631.8 -603.1 -631.8 -603.4 -768.7 -886.0 -980.5 -980.5 -980.5 -980.5 -6062 -624.6 -624.6 -624.6 -624.6 -624.7	FT/SEC 599.0 644.6 714.6 910.2 975.5 1022.8	FT/SEC 628.0 646.0 667.2 730.1 818.0 976.9 1000.5 1023.2 N*-2 .7951 .7974 .8156 .8772 .9159
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE .89 -2.30 -3.23 -4.07 -2.99	IN 18.580 19.119 19.170 21.600 24.260 28.900 29.600 30.270 INCM DEGREE 4.85 2.29 2.29 3.52	FT/SEC 1110.1 1120.2 1108.3 1050.8 972.6 861.7 764.2 733.9 714.4 DEV DEGREE 16.2 19.8 17.6 11.1 14.8 14.6 14.6 16.6	FT/SEC 679-7 704-5 724-5 746-6 750-3 7669-1 506-9 708-8 950-9 950-90 950-90 90 90 90 90 90 90 90 90 90 90 90 90 9	FT/SEC 703-2 703-2 703-2 709-8 709-8 703-8	FY/SEC 3 704-5 679-3 702-4 745-1 745-1 745-1 7568-9 531-7 508-4 51-7510 1-5471 1-3862 1-2865	FT 684.5 681.1 681.1 475.2 681.1 475.2 418.5 418.5 676.5 418.5 676.5	752C 23 41.3 55.2 45.3 55.3 55.3 22.6 19.9 22.4 0MEgA -B 140.6 1577 090.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0	50.49 50.49 50.49 50.40 50	0ESREE 30 3-34 4-37 3-59 4-34 1-94 2-53 	DEGREE -28-22 -16-62 -30-64 -40-91 -40-91 -40-92 -908/ -908/ -908/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/ -909/	DESINEE - 42.90 - 40.67 - 42.51 - 53.14 - 53.16 - 53.16 - 53.16 - 63.16 - 0249 - 0249 - 0259 - 0200 - 0000 - 0000	779.8 779.8 779.8 779.8 802.1 819.2 841.9 837.5 839.2 EFF-AD TOTAL .0000 .0000 .0000	7/32C 927.5 926.8 1011.1 1055.7 1115.8 1121.7 8 STATIC .8281 .7925 .8002 .8640 .9031	FY/SEC 240.0 240.0 259.9 -33.5 -234.1 -551.3 -581.0 -605.9 M-1 1.0136 1.0034 .9663 .7607 .5686	FY/SEC -631.8 -631.8 -631.8 -7683.4 -7683.4 -7683.7 -960.7 -1000.8 -2 -5827 -606241 -6477 -6342 -579.8 -7904	FT/SEC 0390 03 05 05 05 05 05 05 05 05 05 05 05 05 05	FT/SEC 628.0 646.0 667.2 730.1 818.0 976.9 1000.5 1023.2 N1-2 .7951 .7951 .7951 .9159 .9159 .9599
% SPAN 5 10 15 30 50 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.86.790 29.570 30.240 INCS DEGREE .88 .39 -2.30 -3.40	IN 18.580 19.110 19.110 21.600 24.210 26.880 29.600 30.270 INCM DEGREE 4.85 2.53 2.53 2.55 3.50 3.50 3.50 3.50 3.50 3.50 3.50 3	FT/SEC 1110.1 1120.3 1108.3 1050.8 972.6 861.7 764.2 733.5 714.4 DEV DEGREE 16-20 19-82 17-61 19-82 17-61	FT/SEC 779.76 779.77 709.78 746.63 746.63 746.63 7569.1 50	FT/SEC 703.2 762.0 769.8 769.8 769.8 635.7 602.8 580.6 580.6 59.61 57.10 51.00 44.79 44.59 44.59 44.59	FT/SEC 679.3 704.6 728.4 745.1 728.2 668.9 531.7 506.4 SOLIDTY 2.1069 1.9451 1.75171 1.3862	FT 6584.51 6584.51 6584.51 6584.53 68754.65 4418 A 6446 5545695 641695	752C -3.2 41.3 55.2 45.3 55.3 22.6 17.9 22.4 0MESA -B 1486 1577 .0921 .0526	50.49 50.49 50.49 50.45 40.50 36.31 33.42 34.79 35.64 LOSS-P TOTAL .0415 .0415 .0404 .0196 .0196	0ESREE 30 3-34 4-37 3-59 4-34 1-94 2-53 LOSS-P PROFILE 0274 0349 0190 0190 0312	DEGREE -28,22 -11,3 -2,3 -16,6 -30,6 40,9 46,2 POIS -932 -913 -976 -976 -977	DESMEE  . 42.90  . 40.47  . 40.87  . 42.51  . 53.14  . 59.34  . 63.16  . 0249  . 0249  . 0249  . 0200  . 0000  . 0000	779.8 779.8 779.8 779.8 802.1 839.2 839.2 841.9 637.5 839.2 EFF-AD 10100 .0000 .0000	7/32c 927.5 926.8 1011.1 1054.7 1107.9 1115.9 1121.7 EXATIC .8281 .7925 .8440 .8483 .9041 .8283	FY/SEC 240.0 220.0 259.9 -33.5 -234.i -551.3 -581.0 -605.9 M-1 1.0136 1.0134 1.0134 1.0474 .5686 .6411	FY/SEC -631.8 -603.4 -762.7 -862.7 -960.9 -980.5 -1000.8 M-2 -5027 -6024.6477 -6542 -5751 -4568	FT/SEC 07 529 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FT/SEC 628.0 646.0 667.2 730.1 818.0 976.6 976.9 1000.5 1023.2 N+-2 .7951 .7951 .7959 .9592 .9593 .9578
% SPAN 5 10 15 30 50 70 85 90 95 15 30 50 70 85 90 95 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE -88 -39 -2.30 -3.23 -4.07 -2.01	IN 18.580 19.119 19.740 21.600 24.200 28.900 29.600 30.270 INCM DEGREE 4.73 2.53 2.26 3.52 4.60 5.21	FT/SEC 1110.1 1120.2 1108.3 1050.6 972.6 861.7 764.4 DEV DEGREE 16-20 19-82 19-82 17-61 14-84 16-68	FT/SEC 7 795.7 707.5 724.5 724.5 724.5 725.9 746.6 756.9 1 506	FT/SEC 703.2 703.2 703.2 709.8	FY/SEC 3 704.5 728.4 745.1 728.2 668.9 531.7 506.4 SOLIDTY 2.10690 1.9451 1.3862 1.2553 1.2271	FT 6542.5 6542.5 6542.5 6542.5 6542.5 6426.5 675.2 6426.5 6426	752C 23 415,2 415,2 45,3 55,3 55,3 22.6 17.9 22.4 0MEgA -0 1577 0921 00504 00944 1044	50.49 50.49 50.49 50.40 50	0ESREE 30 3-34 4-37 3-59 4-34 1-94 2-53 LOSS-P PROFILE 0274 0349 0190 0190 0312	DEGREE -28,22 -11,3 -2,3 -16,6 -30,6 40,9 46,2 POIS -932 -913 -976 -976 -977	DESINEE . 42.90 . 40.64 . 40.51 . 42.51 . 53.14 . 53.14 . 63.16 . 0249 . 0249 . 0249 . 0249 . 0249 . 0249 . 0269 . 0269	779.8 770.8 770.8 770.8 770.8 802.1 819.2 837.5 837.5 839.2 EFF-AD 107AL .0000 .0000 .0000 .0000	7/32C 927.5 928.6 1011.1 1054.7 1116.9 1115.8 1121.7 A STATIC .8281 .8002 .8483 .9001 .8449 .8233	FY/SEC 240.0 240.0 259.9 -33.5 -234.1 -551.3 -561.0 -605.9 M-1 1.0136 1.0034 -9474 2607 .5686 .6411 .5229	FY/SEC -631.8 -604.7 -612.1 -663.4 -762.7 -866.0 -960.7 -1000.8 -2 -5827 -65241 -6477 -65751 -4904 -4568 -4338	FT/SEC 0 599.0 599.0 644.6 810.8 910	FT/SEC 628.0 646.0 667.2 730.1 818.0 976.9 1000.5 1023.2 N+-2 .7951 .7954 .8156 .8772 .9159 .9623 .9578 .9600
% SPAN 5 10 15 30 50 70 85 90 95 10 15 30 50 70 85 90 95 95 96 96 96 96 96 96 96 96 96 96 96 96 96	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE -88 -39 -2.30 -3.23 -4.07 -2.01	IN 18.580 19.119 19.119 19.740 21.600 24.200 28.900 30.270 INCM DEGREE 4.85 2.26 2.26 3.52 4.60 5.21 NCOR-1	FT/SEC 1110.1 1120.3 1108.3 1050.8 972.6 861.7 733.9 714.4 DEV DEGREE 16-20 19-82 17-61 15-11 14-86 17-87 18-86	FT/SEC 779.76 779.77 709.78 746.63 746.63 746.63 7569.1 50	FT/SEC 703.2 703.2 709.8 709.8 719.8	FT/SEC 3 704-5 728-4 745-1 728-2 662-8 568-9 531-7 2-1069 2-0280 1-5471 1-3862 51-2553	FT 6584.51 6584.51 6584.51 6584.53 68754.65 4418 A 6446 5545695 641695	752C 23 415,2 415,2 45,3 55,3 55,3 22.6 17.9 22.4 0MEgA -0 1577 0921 00504 00944 1044	50.49 50.49 50.49 50.40 50	0ESREE 30 3-34 4-37 3-59 4-34 1-94 2-53 LOSS-P PROFILE 0274 0349 0190 0190 0312	DEGREE -28,22 -11,3 -2,3 -16,6 -30,6 40,9 46,2 POIS -932 -913 -976 -976 -977	DESIDE   42.90   42.51   46.31   53.14   53.14   63.16	779.8 770.8 770.8 770.8 770.8 802.1 819.2 837.5 837.5 839.2 EFF-AD 107AL .0000 .0000 .0000 .0000	7/32C 927.5 928.6 1011.1 1054.7 1116.9 1115.8 1121.7 A STATIC .8281 .8002 .8483 .9001 .8449 .8233	FY/SEC 240.0 220.0 259.9 -33.5 -234.i -551.3 -581.0 -605.9 M-1 1.0136 1.0134 1.0134 1.0474 .5686 .6411	FY/SEC -631.8 -631.8 -631.8 -7683.4 -7683.4 -7683.7 -960.7 -1000.8 -2 -5827 -60241 -6477 -6542 -579.4 +568 +4568 +4568 +4568	FT/SEC 0 599.0 599.0 644.6 810.8 910	FT/SEC 628.0 644.0 667.2 730.1 818.0 976.9 1000.5 1023.2 N1-2 .7951 .8156 .8772 .9159 .9599 .9623 .9578 .9600 SLANT-2

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

105% of Design Speed ROTOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0-2 U-1 U-2 IN IN FT/SEC .00 53.81 35.88 -29.74 757.2 785.4 -443.8 389.7 443.8 542.2 .00 52.88 37.26 -26.14 787.6 762.4 -476.9 336.0 476.9 567.9 .00 50.65 38.68 -20.00 820.8 740.7 -513.1 253.5 513.1 594.6 0 931.9 0 903.9 13.120 16.030 613.5 1154.7 613.5 681.9 14.100 16.790 626.8 1133.5 626.8 683.9 .0 848.1 640.6 1096.7 640.6 695.0 15.170 17.580 .00 45.91 42.44 -3.36 915.8 694.9 -618.3 41.1 618.3 673.4 .0 714.6 18.280 19.910 675.4 994.6 675.4 691.6 .00 42.23 46.81 14.83 1029.2 690.4 -750.5 -176.5 750.5 781.0 00 42.23 46.81 14.83 1029.2 690.4 -750.5 -176.5 750.5 781.0 00 39.84 50.88 31.15 1128.1 723.0 -875.3 -375.5 875.3 888.2 00 41.17 53.74 43.37 1193.4 732.6 -962.3 -502.7 962.3 967.7 00 43.01 54.67 47.14 1215.5 728.1 -991.7 -533.3 991.7 994.7 .00 44.32 55.53 50.05 1236.9 732.5 1319.8 -561.6 1019.8 1020.8 0 604.5 0 514.7 704.0 899.1 704.0 665.5 22,190 23.090 711.3 803.4 711.3 616.8 25.880 26.260 28.450 28.610 705.8 706.8 705.8 532.2 702.8 676.9 702.8 495.0 .0 465.D .0 461.4 29.320 29.410 ·C 459.2 30.150 30.180 700.0 657.2 700.0 470.2 .2408 .2680 .0478 .0478 1.5702 .8575 .8481 .000 .3047 .1796 .0353 .0353 1.6163 .8995 .8461 .000 .4545 .0174 .0256 .0256 .256 INCS INCH DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-9 M-1 M-2 M1-1 M1-2 SPAN DEGREE DEGREE DEGREE DEGREE DEGREE ·9000 .5674 1.9620 .7012 .7224 6.96 65.62 76.84 2.4330 -5.13 1.79 •0000 .5813 1.0369 •0000 .5950 .9979 .7321 .6974 4.88 63.41 6.87 58.68 65.90 2.2859 2.42 62.90 2.1571 53.25 1.9040 .6740 .7642 2.67 -3.63 .0137 1.6188 ·0000 .6293 .8929 .8553 .6239 .4545 .0521 .0137 2.90 10.34 45.80 0125 0125 1.6045 .9583 .9554 0235 0193 1.5446 .9078 .9021 0417 0354 1.459 .7998 .7890 0423 1.4344 .7496 .7367 .0000 .6581 .0151 .6640 .0244 .6578 3.16 10.30 31.98 39.13 1.6891 .5062 .0438 3.86 11.00 19.72 26.92 1.5338 .5087 .0844 4.09 13.47 19.37 19.75 1.4420 .5216 .1556 7968 9671 •611<sup>8</sup> .7047 1.0614 .6341 ·6137 1·1210 ·6361 .0275 .6550 .5851 1.1392 .6294 .0311 .6527 .5662 1.1563 .6310 7.53 18.33 1.4148 .5353 .2038 4.04 14.86 +0528 +0456 1-4211 -7162 -7019 .5415 .2285 .49 3.84 15.96 5.48 17.48 1.3890 STA-1 STA-2 SLANT-1 SLANT-2 NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P DEGREE DEGREE RPM LBM/SEC LBM/SEC TO1 PO1 7751.0 187.36 42.25 1.1513 1.5561 88.951 89.76 5.0 6.0 86.05 95.02 STATOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V8'-2 U-1 U-2 IN IN FT/SEC 23.970 24.200 947.2 695.9 747.0 693.7 502.3 26.790 26.880 869.9 660.8 708.4 659.9 504.8 28.860 28.9en 782.8 576.9 632.9 576.6 460.6 20.4 36.06 29.570 29.60 755.3 543.0 600.7 542.6 457.8 20.4 37.33 30.240 30.270 738.3 520.9 579.1 520.5 458.0 20.7 38.34 2.03 39.17 58.93 816.7 1117.7 -515.5 -957.1 976.1 977.5 2.15 42.09 61.08 809.5 1121.1 -582.4 -980.8 1000.1 1001.2 2.28 44.28 62.57 809.0 1130.1 -564.9-1003.1 1022.8 1023.8 INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LDSS-P LOSS-P P02/ OMEGA-B EFF-AD EFF-P
\*\*SPAN DEGREE DEGREE DEGREE DEGREE

5 2.92 6.87 14.54 54.55 62.54 2.1076 .6030 .1446 .0343 .0343 .9355 .0000 .0000 .826 9582 ·5303 9600 ·5482 .6030 .1446 .5767 .1720 .0000 .8266 .6239 .7667 7.27 19.31 47.71 59.58 2.0291 6.41 20.51 43.13 57.08 1.9469 .9600 .5482 .6360 .7550 .9456 .5605 .6461 .7648 0423 0423 ·9229 ·0000 .7957 • ñ000 5516 .1683 .0431 .0431 2.08 .9260 .0000 .7922 .0000 0242 0242 0191 0191 .9653 .0000 .9779 .0000 .5968 •6675 4.51 17.45 38.85 51.75 1.7531 .4864 .0850 .0000 8975 .8744 .8418 3.92 15.29 4.06 15.75 33.42 44.79 1.5482 .0593 .0557 .8986 4353 .8443 .6984 •0000 .6015 .8921 .9819 .0000 .9702 .0000 ·0200 ·0200 ·0314 ·0314 7683 .5705 .7214 .0000 .8929 -.68 5.82 17.08 34.03 45.33 1.2866 .4814 .0807 .6847 .4948 .7150 .8479 •9585 .0000 7.08 17.87 35.17 45.96 1.2554 7.91 18.61 36.06 46.75 1.2271 .0378 .0378 .9760 .0000 .0429 .0429 .9745 .0000 .5116 .5356 .0950 .0000 .8292 .6585 .4639 .7058 .6415 .4436 .7027 .9577 1054 ·0000 ·8171 NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P RPM LBM/SEC LBM/SEC TO1 PO1 % % STA-1 STA-2 SLANT-1 SLAHT-2 DEGREE DEGREE

11.0 12.0 90.00 90.00

SOFT

7751.0 187.36 42.25 1.1513 1.5079 82.260 83.37

ROT	OR						1107	% OI ⊅6	ssign c	specu								
	DIA-1	DIA-2	Y-1	Y-2	v -1	VN-2	¥0-1	V0=2	2-1	8-2	21-1	51-2	V 1	V + - 2	V0 -1	V01-2	U-1	U-2
% SPAN	IN	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGRÉE	DEGREE	DEGREE	DEGREE	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/5FC	FT/SEC
5				1299+5	643.2	757.6		1055.8	.00		35.88	-32.75	793.8	900.8	-465.3	487.4	465 • 3	
10				1282.3				1007.2		51.76		-27.41			-500.0			
15				1241.7		795.5	.0	953,3	.00			-22,47			-538.0			
30		19.916		1106.7				773.9	.00				963.5		-648.3			
50 70		25.090		955.0 806.6					-00				1082.3			-209.6		9 818.8 9 931.2
70 85		28.610		703.5					.0o				1183.3 1250.1			-461 · 1		9 1014.6
90		29.410		666.0									1272.8					9 1042.9
90 95				636.9								53.52						2 1070.3
35				0-0-7	,,,,,,	7-1-	••	••••		• • • • • • • • • • • • • • • • • • • •	.,,,,,,,		,,,,,,	54342		00.10		
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LoSS-P	P02/	EFF-P	EFF-AD	OMEGA-E	M-1	M-2	M'-1	41-2
% SPAN	DEGREE											TOTAL				•		
5	~5.15	1.78	3.94	68.63	70.82	2.4340	.1657	• 3942	• 0681	.0681	1.6412	.8054	.7890	•0000	.5963	1+2123	.736	4 .5404
10	-4.28	2.40		64.65		2 . 2868					1.7289					1+1919		
15	-3.69	2.61	4.39			2.1577					1.7477					1.1452		
30	-2.94	2.72		47.11		1.9036				.0222	1.6972	.9369	.9319			1.0011		
50	-1.94					1.6883				0261	1.5947	8990	8921		6982		1.025	
70	26	3.86				1 • 5335						•8 <u>1</u> 77			.6995		1 • 1 ? 1 !	
85	•56 •66	4.18 4.14			•	1.4420					1.3609				.6900		1-180	
90 95	.61		19.37			1.3890		2827	•0585 •0605		1.3295 1.3074		•6178 •5750		.6865 .6836		1.215	
90	, - 2	••,	1 . 40.		1.1.	1,00.0	. 1110	12-7.	. 050.3	•0503	1,50.4	, 550	• 37.00	• 0700		. 3500	14512	
		NCOR-1	WCOR-1	MC/A-1	T02/	POZ/	EFF-AD	EFE-P						9	STA-1 S	TA-2 5	LART-1	SLANT-2
				LEM/SEC		PO1	*	*						•				DEGREE
				SOFT				•								_		
		8127.0	192.62	43.43	1.1575	1.5405	83.393	84.52							5.0	5 <b>0</b>	86.05	95.02
STA	ror																	
STA		D74-0	V-1	2	Linda 9	VA-2	v6. •	Va=2	8_1	B=2	81-1	B1=2	V!=1	V!=2	vn*=1	V0+-2	11-1	11-2
	DIA-1	DIA-2	V-1	N=2	<u> </u>	<u> </u>	V0=1	<u> </u>	8-1 1F6REF (	8-2 FGRFF I	81-1 FERFF	8'-2 FERFE F	V'-1	V!-2	V0:-1 T/SEC F	V01-2	U-1 FT/SEC	U=2 FT/SEC
% SPAN	DIA-1	in f	T/SEC	FT/SEC I	T/SEC	FT/SEC	T/SEC I	FT/SEC [	EGREE (	EGREE D	EGREE I	EGREE F	T/SEC F	TISEC F	T/SEC F	T/SEC F	U-1 T/SEC 628.4	FT/SEC
% SPAN 5	DIA-1 IN 17.720	18,580	T/SEC 1210.3	FT/SEC 1	743.2	783.2	955.2	FT/SEC ( -42.5	52.11	EGREE [ -3,13	EGREE (	EGREE F	1/SEC F	T/SEC F 1051.5	T/SEC F 326,8	7/SEC   -701.4	628,4	FT/5EC 658,9
% SPAN	DIA-1 IN 17.720 18.350	18,580	T/SEC 1210.3 1224.5	FT/SEC ( 784.5 819.6	743.2 805.9	783.2	7/S <sub>EC</sub> 1 955.2 921.9	FT/SEC [ -42.5 -7.3	EGREE (	EGREE ( -3.13 53	EGREE ( -23.73 -18.60	EGREE F	T/SEC F 812.1 850.4	TISEC F	7/SEC F 326,8 271.2	7/SEC -701.4 -685.0	650.7	677.7
% SPAN 5 10	DIA-1 IN 17.720 18.350 19.070	IN F 16.580 19.110 19.740	T/SEC 1210.3 1224.5 1210.7	FT/SEC 1 784.5 819.6 837.6	743.2 805.9 832.2	763.2 819.4 837.4	7/S <sub>EC</sub> 1 955.2 921.9	FT/SEC [ -42.5 -7.3	52.11 48.84 46.56 40.38	EGREE [ -3.13 53 1.27 4.99	EGREE ( -23.73 -18.60 -13.69 1.42	EGREE #1.85 39.90 39.14 40.88	T/SEC 6 812.1 850.4 857.2 857.9	FT/SEC F 1051.5 1068.1 1079.6 1063.4	T/SEC F 326,8 271.2 202.9 -21.2	-7/SEC -701.4 -685.0 -681.4 -695.9	650.7 676.3 749.7	677.7 658.9 677.7 700.0 766.0
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	N F 16.580 19.110 19.740 21.600 24.200	T/SEC 1210.3 1224.5 1210.7 1123.9	784.5 784.5 819.6 837.6 807.0 775.0	743.2 805.9 832.2 855.4 820.3	763.2 819.4 837.4 803.9 772.3	7/SEC 1 955.2 921.9 879.2 728.4 587.0	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1	52.11 48.84 46.56 40.38 35.56	EGREE ( ~3.13 ~.53 1.27 4.99 4.66	EGREE ( -23.73 -18.60 -13.69 1.42 17.77	9.90 39.90 39.14 40.88 45.81	7/SEC 6 812.1 850.4 857.2 857.9 863.4	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9	7/5EC F 326.8 271.2 202.9 -21.2 -263.1	-701.4 -685.0 -681.4 -695.9 -795.1	650.7 676.3 749.7 850.0	658,9 677.7 700.0 766.0 858.2
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	16.580 19.110 19.740 21.600 24.200 26.880	1210.3 1224.5 1210.7 1123.9 1008.8 880.6	784.5 819.6 837.6 807.0 775.0 712.1	743.2 805.9 832.2 855.4 820.3 749.9	783.2 819.4 837.4 803.9 772.3 712.0	7/SEC   955.2 921.9 879.2 728.4 587.0 461.4	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9	52.11 48.84 46.56 40.38 35.56	-3.13 53 1.27 4.99 4.66	-23.73 -18.60 -13.69 1.42 17.77 33.05	H1.85 39.90 39.14 40.88 45.81 52.99	7/SEC f 812.1 850.4 857.2 857.9 863.4 896.8	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1	7/SEC F 326,8 271.2 202.9 -21.2 -263.1 -488.6	-7/SEC   -701.4 -685.0 -681.4 -695.9 -795.1 -945.3	628.4 650.7 676.3 749.7 850.0	FY/SEC 658,9 677.7 700.0 766.0 858,2 953.2
% SPAN 5 10 15 30 50 70 86	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860	16.580 19.110 19.740 21.600 24.200 26.880 28.900	1210.3 1224.5 1210.7 1210.7 1123.9 1008.8 880.6 789.5	784.5 819.6 837.6 807.0 775.0 712.1 634.4	743.2 805.9 832.2 855.4 820.3 749.9	783.2 819.4 837.4 803.9 772.3 712.0 634.4	7/SEC   955.2 921.9 879.2 728.4 587.0 461.4 414.1	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9 2.9	52.11 48.84 46.56 40.38 35.56 31.58	-3.13 -5.13 -5.3 1.27 4.99 -4.66 -62 .28	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19	H1.85 39.90 39.14 40.88 45.81 52.99 58.17	7/SEC f 812.1 850.4 857.2 857.9 863.4 896.8 907.7	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0	7/SEC F 326.8 271.2 202.9 -21.2 -263.1 -488.6 -609.3	-7/SEC -701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9	628,4 650.7 676.3 749.7 850.0 950.0	FY/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	7/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 789.5 756.7	784.5 784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8	743.2 805.9 832.2 855.4 855.4 820.3 749.9 672.2 637.8	783.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7	7/SEC   955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1	FT/SEC 0 -42.5 -7.3 18.6 70.0 63.1 7.9 2.9	52.11 48.84 46.56 40.38 35.56 31.58 31.64 32.56	-3.13 53 1.27 4.99 4.66 .62 .28 1.05	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19 45.17	900 Services   100 Se	7/SEC F 812.1 850.4 857.2 857.9 863.4 896.8 907.7	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0	7/SEC F 326.8 271.2 202.9 -21.2 -263.1 -488.6 -609.3-	-7/SEC -701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9 1039.0	628,4 650.7 676.3 749.7 850.0 950.0 1023.4	FY/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7
% SPAN 5 10 15 30 50 70 86	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	7/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 789.5 756.7	784.5 819.6 837.6 807.0 775.0 712.1 634.4	743.2 805.9 832.2 855.4 855.4 820.3 749.9 672.2 637.8	783.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7	7/SEC   955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9 2.9	52.11 48.84 46.56 40.38 35.56 31.58 31.64 32.56	-3.13 -5.13 -5.3 1.27 4.99 -4.66 -62 .28	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19	900 Services   100 Se	7/SEC F 812.1 850.4 857.2 857.9 863.4 896.8 907.7	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0	7/SEC F 326.8 271.2 202.9 -21.2 -263.1 -488.6 -609.3-	-7/SEC -701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9 1039.0	628,4 650.7 676.3 749.7 850.0 950.0 1023.4	FY/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7
% <u>SPAN</u> 5 10 15 30 50 70 85	D1A-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860 29.570 30.240	16.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	75EC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4	FT/S=C 1784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8 559.5	743.2 805.9 832.2 855.4 855.4 820.3 749.9 672.2 637.8	783.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4	7/SEC 1 955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9 2.9 10.7	52.11 48.84 46.56 40.3A 35.56 31.54 31.64 32.56 33.33	0E6REE [ -3.13 -5.53 1.27 4.99 4.66 -62 .28 1.05	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19 45.17 47.65	EGREE #1.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15	7/SEC   612.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.5	7/SEC F 326,8 271.2 202.9 -21.2 -263.1 -409.3 -641.5 -670.6	-701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9 1039.0	628.4 650.7 676.3 749.7 850.0 950.0 1023.4 1048.6	FT/SEC 658,9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4
% SPAN 5 10 15 30 50 70 85 90 95	D1A-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860 29.570 30.240 INCS	16.580 19.110 19.740 21.600 24.200 26.880 26.880 29.600 30.270	75EC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4	784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8 559.5	743.2 805.9 832.2 855.4 820.3 749.9 672.2 637.8 611.1	783.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4	7/SEC 1 955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9 2.9 10.7	52.11 48.84 46.56 40.3A 35.56 31.58 31.64 32.56 33.33	-3.13 -5.3 1.27 4.99 4.66 -62 1.05 1.51	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19 45.17 47.65	41.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15	7/SEC f 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0 1197.5	7/SEC F 326.8 271.2 202.9 -21.2 -263.1 -488.6 -609.3-	-7/SEC -701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9 1039.0	628.4 650.7 676.3 749.7 850.0 950.0 1023.4 1048.6 1072.4	FT/SEC 658,9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4
% SPAN 5 10 15 30 50 70 85 90 95	D1A-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE (	16.580 19.110 19.140 21.600 24.200 26.880 28.900 29.600 30.270 INCM	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 DEY	FT/S=C   784.5   819.6   837.6   807.0   775.0   712.1   634.4   593.8   559.5   TURN   DEGREE	743.2 805.9 832.2 850.3 749.9 672.2 637.8 611.1 CAMBER	763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4	755.2 955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1 401.8	FT/SEC 1 -42.5 -7.3 18.6 70.0 63.1 7.9 2.9 10.7 14.7	52.11 48.84 46.56 40.3A 35.56 31.58 31.64 32.56 33.33	0E6REE [ -3.13 -5.53 1.27 4.99 4.66 -62 .28 1.05	-23.73 -18.60 -13.69 1.42 17.77 33.05 42.19 45.17 47.65 P02/0	41.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15	7/SEC f 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0 1197.5	7/SEC F 326,8 271.2 202.9 -21.2 -263.1 -488.6 -609.3- -641.5- -670.6- M-1	-701.4 -685.0 -681.4 -695.9 -795.1 -945.3 1021.9 1039.0	628.4 650.7 676.3 749.7 850.0 950.0 1023.4 1048.6	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.5 1049.7 1073.4
% SPAN 5 10 15 30 50 70 85 90 96	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE (1.76	18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270 INCM DEGREE D	1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 DEY	FT/S=C 784.5 819.6 837.6 807.0 775.0 712.1 634.4 559.5 TURN DEGREE [ 55.24	743.2 805.9 832.2 855.4 826.3 749.9 672.2 637.8 611.1 CAMBER S DEGREE 62.60	7/SEC 763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 SOLIDTY 2.1044	7/SEC 955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1 401.8 0-FAC	-42.5 -7.3 18.6 70.0 63.1 7.9 2.9 10.7 14.7	52.11 48.84 46.56 40.38 35.56 31.58 31.64 32.56 33.33 LOSS-P	-3.13 53 1.27 4.99 4.66 28 1.05 1.51 LOSS-P	-23.73 -18.60 -13.69 -13.69 -1.42 17.77 -33.05 42.19 45.17 47.65 	41.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-B E 10CK 5.20 .0483	7/SEC f 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0 1197.5 EFF-P STATIC .8293	7/SEC F 326,8 271.2 202.9 -21.2 -263.1 -488.6 -609.3- -641.5- -670.6- M-1	-701.4 -701.4 -685.0 -681.4 -695.1 -945.3 1021.9 1039.0 1058.7	628.4 650.7 676.3 749.7 950.0 950.0 1023.4 1048.6 1072.4 M·-1	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2
% SPAN 5 10 15 30 50 70 85 90 95	D1A-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE (	16.580 19.110 19.740 21.600 24.200 26.880 28.900 29.660 30.270 INCM DEGREE D	1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 DEY	784.5 784.5 819.6 837.6 807.0 775.0 712.4 593.8 559.5 TURN DEGREE ( 55.24 49.37 45.29	743.2 805.9 832.2 855.4 820.3 749.9 672.8 631.1 AMBER DEGREE 62.60 59.70	7/SEC 763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 SOLIDTY 2.1044	7/SEC 955.2 921.9 879.2 728.4 587.0 461.4 414.1 407.1 401.8 0-FAC	FT/SEC [ -42.5 -7.3 18.6 70.0 63.1 7.9 2.9 10.7 14.7 DMEGA-P .14.06 .1758	52.11 48.84 46.56 40.38 35.56 31.56 32.56 33.33 LOSS-P TOTALI	-3.13 -53 1.27 4.99 4.66 .28 1.05 1.51 LOSS-P PROFILE	-23.73 -18.60 -13.69 -13.69 -1.42 17.77 -33.05 42.19 45.17 47.65 	41.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE 10CK .05.22	7/SEC F 812.1 850.4 857.9 857.9 863.4 8967.7 907.4 FF-AD OTAL S .0000 .0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1184.9 1184.9 1187.0 1197.0 1197.5 FFF-P STATIC .8293 .7791 .7700	7/5EC F 326.8 271.2 202.9 -21.2 -63.1 -699.3 -641.5 -670.6 M-1 1.1130 1.1212 1.0964	7/SEC -701.4 -685.0 -685.9 -795.1 -945.3 1021.9 1039.0 1056.7 H=2 .6720 .7230	628.4 650.7 676.7 749.7 850.0 950.0 1023.4 1048.6 1072.4 M1 .7566 .7852 .7807	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9319
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	D1A-1 IN 17.720 18.350 19.070 21.140 26.770 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.660 30.270 INCM DEGREE D 5.77 4.99 4.80	7/SEC 1210-3 12240-7 1123-9 1008-8 080-6 7-39-5 7-56-7 7-31-4 0EY 15-46 15-46 16-74 19-05	784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8 559.5 TURN DEGREE ( 55.24 49.37 45.29	743.2 805.2 805.4 832.2 855.4 820.3 749.2 637.8 611.1 AMBER 50.70 50.70 51.89	FT/SEC 783.2 819.4 837.4 803.9 712.3 712.0 634.4 593.7 559.4 SOLIDTY 2.1044 2.0242 1.9408 1.7484	955.2 925.2 921.2 728.4 587.0 461.4 407.1 407.8 0.FAC 5434 5143 4470	FT/SEC [ -42.5 -7.3 16.6 70.0 63.1 7.9 2.9 10.7 14.7 0MEGA-P .1756 .1756 .1930	258REE [ 52.11 48.84 46.56 40.3A 35.56 31.56 32.56 33.33 LOSS-P TOTAL 0.333 .0434 .0455 0.0550	-3.13 -5.13 1.57 4.99 4.66 .62 1.05 1.51 LOSS-P PROFILE .0315 .0343	23.73 -18.69 -13.69 1.42 17.77 33.05 42.19 45.17 47.65 P02/0 P01 SH .9041 .9041	#1.85 39.14 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE 10CK 0423 .0423 .0427	7/SEC 1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 (FF-AD 07AL 5 .0000 .0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0 1197.5 FFF-P STATIC .8293 .7791 .7700 .7181	7/SEC F 326,8 271.2 202.921.2263.1481.5670.6 M-1 1.1130 1.1212 1.0997	7/SEC -701.4 -615.0 -685.0 -685.4 -695.9 -795.1 -795.3 -1021.9 -1039.0 -1058.7 -4-2 -6720 -7051 -7230 -6993	628.47 650.37 749.7 850.0 950.0 950.0 1048.6 1072.4 M1 .7566 .7852 .7791	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.5 1049.7 1073.4 M-2 .9006 .9189 .9319 .9214
% SPAN 5 10 15 30 50 96 % SPAN 5 10 15 30 50 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 .43 ~2.55	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM 1NCM 4.99 4.80 2.31 1.50	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 0EY 15.46 16.74 19.05	FT/S=C   784.5   819.6   837.6   807.0   775.0   775.0   634.4   593.8   559.5   TINN   CEGREE   49.37   45.29   35.39   30.89	743.2 805.9 832.2 855.4 820.3 749.9 672.2 657.8 611.1 26GREE 52.60 57.20 57.20 51.89	FT/SEC 763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 2.1044 2.0242 1.9408 1.7484 1.5472	7/SEC 955.2 921.9 921.9 728.4 461.4 407.1 407.1 401.8 0-FAC .5u34 .5143 .4870 .4870	FT/SEC [ -42.5 -42	EGREE 52.11 48.84 46.56 40.3A 35.56 31.56 32.56 32.56 32.56 33.33 LOSC-P TOTAL 0434 0453 0453	-5.13 -5.13 -5.27 4.99 4.66 -28 1.05 1.51 Loss-P PROFILE .0315 .0343 .0513	23.69 213.69 1.42 17.77 33.05 42.19 45.17 47.65 PO2/ 0 PO1 SH .9041 .9064 .9056	DEGREE 6 41.85 39.14 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE 10CK 05.23 .0427 .0129	7/SEC 6 812.1 850.4 857.2 857.9 863.4 896.8 907.7 907.4 (FF-AD 0000 .0000 .0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1108.9 1184.1 1203.0 1197.0 1197.5 FFF-P TATIC .8293 .7791 .7700	7/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 -263,1 -609,3 -641,5 -670,6 - M-1 1.1130 1.1212 1.0964 1.0097 .9003	7/SEC -701.4 -701.4 -685.0 -685.9 -795.1 -945.3 1021.9 1039.0 1058.7 M-2 .6720 .7051 .7230 .6933 .6733	628.4 650.7 650.0 749.7 850.0 950.0 1048.6 1072.4 M'-1 .7566 .7852 .7871 .7747	FT/SEC 658.9 677.7 700.0 766.0 858.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9634
% SPAN 5 10 15 30 50 70 85 90 95 10 15 30 50 70 70 70 70 70 70 70 70 70 70 70 70 70	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 20-860 29-570 30-240 INCS DEGREE 6 1-76 -73 -43 -2-55 -5-97	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DE GREE D 5.77 4.99 4.80 2.31 1.50	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 87.9 7.5 7.7 7.3 1.4 0 13.4 13.4 16.7 19.5 19.5 19.5 19.5 19.5 19.5 19.5 19.5	784.5 819.6 837.6 807.0 775.0 712.0 634.4 593.8 559.5 TURN DEGREE [ 55.24 45.29 35.39 30.89	743.2 805.9 832.2 855.4 820.3 749.9 672.2 637.8 611.1 268EE 62.60 52.60 51.89 44.33	FT/SEC 783.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 50LIDTY 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866	955.2 921.9 921.9 728.4 587.0 461.4 414.1 407.1 401.8 0-FAC .5133 .4879 .4470 .3765	FT/SEC [ -42.5 -42.5 -70.0 63.1 70.0 63.1 70.7 14.7 0MEGA-P 14.06 17.56 19.30 16.25 10.993	EGREE [ 52.11	-3.13 -5.13 1.27 4.99 4.66 .62 1.05 1.51 LOSS-P PROFILE .0315 .0343 .0513 .0535	23.73 -18.69 -13.69 -1.42 -17.77 -33.05 -42.19 -45.17 -47.65 -9246 -9056 -9064 -9669	#1.85 39.90 39.14 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE 10CK 1.05.22 .0483 .0427 .0129	T/SEC f 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 .0000 .0000	T/SEC F 1051.5 1068.5 1063.4 11079.6 1063.4 11203.0 1197.0 1197.5 EFF-P STATIC .2791 .7700 .7181 .77008	7/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 -263,1 -609,3 -641,5 -670,6 - M-1 1,1130 1,1212 1,0964 1,0097 1,9003 .7813	7/SEC -701.4 -701.4 -665.0 -665.4 -695.9 -795.1 -945.3 1021.9 1039.0 1058.7 M-2 .6720 .693 .6733 .6138	628.4 650.7 670.3 749.7 850.0 01023.4 1048.6 1072.4 M-1 .7566.7 852.7807 .7791 .7791	FT/SEC 658.9 677.7 700.0 766.0 858.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9319 .9634 1.0306
% SPAN 5 10 15 30 50 95 95 % SPAN 5 10 15 30 50 50 50 85 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97	18.580 19.110 19.740 21.600 24.200 26.880 28.930 29.660 30.270 INCM DEGREE D 5.77 4.99 4.80 2.31 1.50	T/SEC 1210-3 1224-5 1210-7 1123-9 1008-8 886-6 756-7 731-4 0EY EGREE 13-43 15-43 16-74 19-05 15-54 15-54	FT/S=C 784.5 819.6 837.6 807.0 775.0 712.4 593.8 559.5 TURN DEGREE ( 55.24 49.29 35.39 30.89 30.89	743.2 805.2 805.4 832.2 855.4 820.3 749.9 672.2 637.8 611.1 AMMER 57.20 51.89 44.33 44.33	7/SEC 7/83-2 819-4 837-4 803-9 772-3 712-0 634-4 593-7 559-4 SOLIOTY 2-1044 2-0242 1-9408 1-7484 1-5472 1-3866	955.2 921.9 921.9 728.4 587.0 461.1 407.1 401.8 0.FAC .5143 .5143 .4879 .4470 .3765 .3987	FT/SEC 0 -42.5 -73.1 18.6 70.0 63.1 7.9 2.9 10.7 14.7 0MEGA-P .14.06 .1756 .1758 .1930 .1625 .0931	EGREE [ 52.11 48.84 46.56 40.3A 35.56 31.64 32.56 33.33 .0453 .0453 .0550 .0358 .035	-3.13 -5.13 1.27 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0313 .0513 .0538	23.73 -18.69 -13.69 -17.77 -33.05 42.13 45.17 47.65 -9024 -9046 -9064 -9064 -9669 -9743	#1.85 39.90 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE OCK .05.22 .0427 .0129 .0000 .0000	T/SEC 1 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1184.9 1184.1 1203.0 1197.0 1197.5 FFF-P STATIC .8293 .7700 .7181 .7708 .7709 .7775	7/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 203,1 -609,3 -641,5 -670,6 -1 1,1130 1,1212 1,0964 1,0097 1,903 7,813 ,6944	7/SEC -701.4 -701.4 -6651.4 -695.9 -795.1 -945.3 1021.9 1039.0 1058.7 M-2 .6720 .6993 .6733 .6198 .5490	628.4 650.7 650.7 749.7 850.0 950.0 1048.6 1072.4 M·-1 .7566 .7807 .7791 .7747 .7986	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M-2 .9006 .9189 .9214 .9319 .9214 1.0306 1.0410
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97 -4.29	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE D 5.77 4.99 4.80 2.31 1.50 1.50	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 0EY EGREE 13.46 16.74 19.05 15.44 19.05	FT/S=C   784.5   819.6   837.6   807.0   775.0   775.0   634.4   593.8   559.5   TURN   555.24   49.37   45.29   30.89   30.97   31.351	743.2 805.9 832.2 855.4 820.3 672.2 657.8 611.1 EGREE 62.60 59.70 57.20 51.89 44.33 45.96	7/SEC 763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2854	7/SEC 955.2 921.9 921.9 921.9 921.9 921.9 461.4 461.4 407.1 407.1 407.1 407.1 407.1 407.1 407.1 3184 3184 3765 3286	FT/SEC [ -42.5	EGREE 52.11 48.84 46.56 40.3A 35.56 31.54 32.55 33.33 35.56 9.0454 9.0550 9.0550 9.0550 9.0429 9.0429	-3.13 -5.13 1.27 4.99 4.66 .28 1.05 1.05 1.05 1.05 1.05 1.05 1.05 1.03 1.03 1.03 1.03 1.03 1.03 1.03 1.03	23.73 -18.69 -13.69 1.42 17.77 33.05 45.17 47.65 P02/ 0 P01 SH .9041 .9041 .9056 .9064 .9330 .9669 .9725	#1.85 39.14 40.88 45.81 52.99 58.17 60.26 62.15 .0427 .0129 .0400 .0000 .0000	7/SEC 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 (FF-AD 0TAL 5 .0000 .0000 .0000 .0000	T/SEC F 1051.5 1068.6 1079.6 1063.4 1108.9 1184.1 1203.0 1197.5 FFF-P TATIC *8293 .7791 .7181 .7108 .7709 .7709 .7709 .7709	7/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 -263,1 -609,3 -641,5 -670,6 - M-1 1.1130 1.1212 1.0097 1.9003 .7813 .6643	7/SEC -701.4 -701.4 -685.0 -685.9 -795.1 -945.3 -1021.9 -1038.7 M-2 -6720 -6733 -6733 -6198 -5418	628.4 650.7 650.0 749.7 850.0 950.0 1048.6 1072.4 41 .7566 .7852 .7872 .7791 .7797 .7970 .7930	F7/5EC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9634 1.0306 1.0410 1.0315
% SPAN 5 10 15 30 50 95 95 % SPAN 5 10 15 30 50 50 50 85 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97	18.580 19.110 19.740 21.600 24.200 26.880 28.930 29.660 30.270 INCM DEGREE D 5.77 4.99 4.80 2.31 1.50	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 0EY EGREE 13.46 16.74 19.05 15.44 19.05	FT/S=C 784.5 819.6 837.6 807.0 775.0 712.4 593.8 559.5 TURN DEGREE ( 55.24 49.29 35.39 30.89 30.89	743.2 805.9 832.2 855.4 820.3 672.2 657.8 611.1 EGREE 62.60 59.70 57.20 51.89 44.33 45.96	7/SEC 763.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2854	7/SEC 955.2 921.9 921.9 921.9 921.9 921.9 461.4 461.4 407.1 407.1 407.1 407.1 407.1 407.1 407.1 3184 3184 3765 3286	FT/SEC [ -42.5	EGREE 52.11 48.84 46.56 40.3A 35.56 31.54 32.55 33.33 35.56 9.0454 9.0550 9.0550 9.0550 9.0429 9.0429	-3.13 -5.13 1.27 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0313 .0513 .0538	23.73 -18.69 -13.69 1.42 17.77 33.05 45.17 47.65 P02/ 0 P01 SH .9041 .9041 .9056 .9064 .9330 .9669 .9725	#1.85 39.14 40.88 45.81 52.99 58.17 60.26 62.15 .0427 .0129 .0400 .0000 .0000	T/SEC 1 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1184.9 1184.1 1203.0 1197.0 1197.5 FFF-P STATIC .8293 .7700 .7181 .7708 .7709 .7775	7/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 -263,1 -609,3-641,5-670,6-M-1 1.1130 1.1212 1.0097 1.9003 .7813 .6643	7/SEC -701.4 -701.4 -6651.4 -695.9 -795.1 -945.3 1021.9 1039.0 1058.7 M-2 .6720 .6993 .6733 .6198 .5490	628.4 650.7 650.0 749.7 850.0 950.0 1048.6 1072.4 41 .7566 .7852 .7872 .7791 .7797 .7970 .7930	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9319 .9214 1.0306 1.0410
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97 -4.29	18.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 INCM DE GREE D 5.77 4.89 4.80 2.31 1.50 1.50 2.90	T/SEC 1210.3 1224.5 1210.7 1123.9 1008.8 880.6 769.5 756.7 731.4 DEY DEY EGREE 13.40 16.74 19.05 15.34 10.77 17.83	784.5 819.6 837.6 807.0 775.0 712.0 712.0 634.4 593.8 559.5 TURN DEGREE ( 55.24 45.29 35.39 30.89 31.51 31.82	743.2 803.2 8032.2 855.4 820.3 749.9 672.2 637.8 611.1 AMMSER 52.60 57.20 57.20 57.20 44.33 45.93 45.93	7/SEC 783.2 819.4 837.4 803.9 772.3 712.3 712.0 634.4 593.7 559.4 50LIDTY 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2867 1.2554 1.2271	7/SEC 292192 728.4 407.1	FT/SEC 1 -42.5 -73.6 18.6 70.0 63.1 7.9 2.9 10.7 14.7 0MEGA-P .14.06 .1758 .1930 .1931 .1027 .1027	EGREE [ 52.11 48.84 46.56 40.3A 35.56 31.64 32.56 33.33 .0453 .0453 .0550 .0550 .0352 .0352 .0352 .0429 .0497	-3.13 -5.13 1.57 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0315 .0513 .0523 .0523 .0429 .0497	23.73 ~13.69 ~13.69 1.42 17.77 33.05 42.13 45.17 47.65 P02/ 0 P01 SH ·9246 ·9046 ·9064 ·9064 ·9330 ·9743 ·9725 ·9707	#1.85 39.90 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE OCK .05.22 .0427 .0129 .0000 .0000	7/SEC 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1184.9 1184.1 1203.0 1197.0 1197.5 FFF-P 5TATIC .8293 .7700 .7181 .7708 .7709 .77581 .7436	7/SEC F 326.8 271.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -203.1 202	7/SEC -701.4 -701.4 -685.0 -685.4 -995.1 -995.3 -1021.9 -1039.0 -1058.7 -230.6993.6198.5490.5118.4805	628.4 650.7 650.7 749.7 850.0 9520.0 1048.6 1072.4 M·-1 .7566 .7807 .7791 .7747 .7986 .7930 .7920	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9319 .9214 1.0306 1.0410 1.0315 1.0283
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97 -4.29	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.660 30.270 INCM DEGREE D 5.77 4.99 4.80 2.31 1.50 1.38 2.31 2.90	T/SEC 1210-3 1224-5 1210-7 1123-9 1008-8 886-6-7 731-4 0EY EGREE 13-40 15-74 19-05 15-34 15-34 15-34 15-34 15-34 15-34 15-34 17-83	FT/S=C 784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8 559.5 TURN DEGREE L 55.24 49.29 35.39 30.89 30.89 31.36 31.51 31.82	743.2 805.4 832.2 855.4 820.3 749.9 672.2 637.8 611.1 AMSER 52.60 59.70 51.89 44.33 45.33 45.33	7/SEC 7/83.2 819.4 837.4 803.9 772.3 712.0 634.4 593.7 559.4 50LIDTY 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2867 1.2554 1.2271	955.2 925.2 927.2 728.4 467.1 407.1	FT/SEC 0 -42.5 -70.0 63.1 70.0 63.1 7.9 2.9 10.7 14.7 0MEGA-P .14.06 .1758 .1930 .1625 .0931 .1077 .1220	EGREE [ 52.11 48.84 46.56 40.3A 35.56 31.64 32.56 33.33 .0453 .0453 .0550 .0550 .0352 .0352 .0352 .0429 .0497	-3.13 -5.13 1.57 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0315 .0513 .0523 .0523 .0429 .0497	23.73 ~13.69 ~13.69 1.42 17.77 33.05 42.13 45.17 47.65 P02/ 0 P01 SH ·9246 ·9046 ·9064 ·9064 ·9330 ·9743 ·9725 ·9707	#1.85 39.90 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE OCK .05.22 .0427 .0129 .0000 .0000	7/SEC 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.6 1079.6 1063.4 1108.9 1184.1 1203.0 1197.5 FFF-P TATIC *8293 .7791 .7181 .7108 .7709 .7709 .7709 .7709	7/SEC F 326.8 271.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -203.1 202	7/SEC -701.4 -701.4 -685.0 -685.4 -695.9 -795.1 -945.3 -1021.9 -1039.0 -1058.7 M-2 -6723 -6793 -6793 -6198 -5490 -5118 -4805	628.4 650.7 650.7 749.7 850.0 950.0 1048.6 1072.4 M1 .7566 .7807 .7791 .7747 .7986 .7930 .7920	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9319 .9214 1.0306 1.0410 1.0315 1.0283 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97 -4.29	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.660 30.270 INCM DEGREE D 5.77 4.99 4.80 2.31 1.50 1.38 2.31 2.90	T/SEC 1210.3 1224.5 1210.7 1210.7 1210.9 1000 88 676.7 731.4 685.4 615.4 615.5 115.4 615.5 115.4 615.7 17.8 3 #COR-1 m/SEC	FT/S=C   784.5   819.6   837.6   837.6   807.0   712.1   634.4   593.8   559.5   TURN   EGREE   49.37   45.29   30.89   30.97   31.36   31.82   EGREE   EGREE	743.2 805.4 832.2 855.4 820.3 749.9 672.2 637.8 611.1 AMSER 52.60 59.70 51.89 44.33 45.33 45.33	7/SEC 783.2 819.4 837.4 803.9 772.3 712.3 712.0 634.4 593.7 559.4 50LIDTY 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2867 1.2554 1.2271	7/SEC 292192 728.4 407.1	FT/SEC 1 -42.5 -73.6 18.6 70.0 63.1 7.9 2.9 10.7 14.7 0MEGA-P .14.06 .1758 .1930 .1931 .1027 .1027	EGREE [ 52.11 48.84 46.56 40.3A 35.56 31.64 32.56 33.33 .0453 .0453 .0550 .0550 .0352 .0352 .0352 .0429 .0497	-3.13 -5.13 1.57 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0315 .0513 .0523 .0523 .0429 .0497	23.73 ~13.69 ~13.69 1.42 17.77 33.05 42.13 45.17 47.65 P02/ 0 P01 SH ·9246 ·9046 ·9064 ·9064 ·9330 ·9743 ·9725 ·9707	#1.85 39.90 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE OCK .05.22 .0427 .0129 .0000 .0000	7/SEC 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.1 1079.6 1063.4 1184.9 1184.1 1203.0 1197.0 1197.5 FFF-P 5TATIC .8293 .7700 .7181 .7708 .7709 .77581 .7436	7/SEC F 326.8 271.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -21.2 202.9 -203.1 202	7/SEC -701.4 -701.4 -685.0 -685.4 -695.9 -795.1 -945.3 -1021.9 -1039.0 -1058.7 M-2 -6723 -6793 -6793 -6198 -5490 -5118 -4805	628.4 650.7 650.7 749.7 850.0 9520.0 1048.6 1072.4 M·-1 .7566 .7807 .7791 .7747 .7986 .7930 .7920	FT/SEC 658.9 677.7 700.0 766.0 858.2 953.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9319 .9214 1.0306 1.0410 1.0315 1.0283 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 20.860 29.570 30.240 INCS DEGREE ( 1.76 .73 -2.55 -4.03 -5.97 -4.29	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 1NCM DEGREE D 5.77 4.80 2.31 1.50 2.31 1.50 2.31 1.50 2.31 1.50 2.31 1.50 2.31	T/SEC 1210.3 1224.5 1210.7 123.9 1008.8 6769.5 756.7 731.4 DEY EGREE 13.46 16.74 12.05 11.5.37 10.77 17.83 #COR-1	FT/S=C 784.5 819.6 837.6 807.0 775.0 712.1 634.4 593.8 559.5 TURN DEGREE L 55.24 49.29 35.39 30.89 30.89 31.36 31.51 31.82	743.2 805.2 832.2 855.4 820.3 749.9 672.2 637.8 611.1 AMBER 52.6 52.6 57.20 51.89 44.33 45.93 45.75 702	7/SEC 783.2 813.4 803.9 772.3 712.0 634.4 593.7 559.4 50LIDTY 2.1044 2.0242 1.9408 1.7484 1.5472 1.3866 1.2867 1.2571 P01	951.9 951.9 921.9 728.4 461.4 407.1 407.1 407.1 407.8 .5143 .5143 .4879 .4470 .3765 .3987 .4230 .4505 .505 .505 .505 .505 .505 .505 .5	FT/SEC 1 -42.5 -70.0 -63.1 -7.9 -2.9 -10.7 -14.7 -7.9 -14.7 -7.9 -17.56 -17.56 -17.56 -16.25	EGREE [ 52.11 48.84 46.56 40.3A 35.56 31.64 32.56 33.33 .0453 .0453 .0550 .0550 .0352 .0352 .0352 .0429 .0497	-3.13 -5.13 1.57 4.99 4.66 .628 1.05 1.51 LOSS-P PROFILE .0210 .0315 .0513 .0523 .0523 .0429 .0497	23.73 ~13.69 ~13.69 1.42 17.77 33.05 42.13 45.17 47.65 P02/ 0 P01 SH ·9246 ·9046 ·9064 ·9064 ·9330 ·9743 ·9725 ·9707	#1.85 39.90 40.88 45.81 52.99 58.17 60.26 62.15 MEGA-BE OCK .05.22 .0427 .0129 .0000 .0000	7/SEC 812.1 850.4 857.2 857.9 863.4 896.8 907.7 905.0 907.4 FF-AD 0000 0000 0000 0000 0000 0000 0000	T/SEC F 1051.5 1068.5 1063.4 11079.6 1063.4 11203.0 1197.0 1197.5 FFF-P 5TATIC .7791 .7700 .7181 .7709 .7709 .7775 .781	T/SEC F 326,8 271,2 202,9 -21,2 202,9 -21,2 208,9 -21,2 208,9 -21,2 208,9 3-641,5-670,6-1 1,1130 1,1212 1,0964 1,0097 1,9003 .7813 .6653 .6588 TA-1 ST	7/SEC -701.4 -701.4 -665.0 -6681.4 -695.9 -795.1 -945.3 1021.9 1039.0 1058.7 M-2 .6720 .6993 .6198 .4805 [A-2 SI	628.4 650.7 650.7 749.7 850.0 950.0 1048.6 1072.4 M1 .7566 .7807 .7791 .7747 .7986 .7930 .7920	FT/SEC 658.9 677.7 700.0 766.0 858.2 1024.9 1049.7 1073.4 M2 .9006 .9189 .9214 .9634 1.0306 1.0410 1.0315 1.0283 SLANT-2 DEGREE

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

RO7	ror						110%	of De	sign S	peed								
% SPAN	DIA-1	01A-2	V-1	V-2	VM-1	VM-2	V0-1	VC-2	B-1	B-2	B'-1	2≖°ان عدد===	V*-1	V1-2	V0 -1	V01-2	U-1	U=2
<u>8 3 AN</u>			L.175EC	- 173EC	+ 1/5EC	FIZSEC.	FIZSEC	FIZSEC	DECKEE	DEWIEE	DEGREE	DECKEE	FI/SEC	PT/SEC	FI/SEC	FT/SE	FT/SEC	FT/SEE
10		16.79	640.6		655.0			1018.4 975.6	.00	54.23	35.97	-31.5	791.5	550.4	-404.5	450	4 464.	9 568 b
15		17.58			670.2													
30		19.91			708.8		• -						859.2					5 62249
50		23.09			738.2					· · · · ·			960.3		-647.7			
70		26.26			741.0								1070.6					2 618.1
85		28.61			731.8					40.21			1245.7					0 930.4
90		29.41			727.8		• -			41.77								0 1013.7 8 1042.0
95		30.180			724.4					42.76			1200.4	788.7	-1050.0	-696	4 1058	2 1069.3
		-,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				.,000	•••	******	•••	460.0	33400	22.00	. 12-00.		-10000	020.	P 1000.	2 100793
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P	P02/	FFF-P	FFF-AD	OMEGA-E	M-1	V+2	M*-1	M1-8
% SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE					ROFILE			TOTAL S		. •	_	• •	· · · · · · · · · · · · · · · · · · ·
5	-5.05				70.83	2 • 4336	.2037	-3434			1.6351	8250	.8124		.5940	1.163	4 .734	.7978
10	-4.18	2.49	4.27	64.05	65.86						1.7028	.8904				1.136		
15	-3.59	2.71	5.47	60.11	62.90	2 - 1574	.3118	.1354	.0292	.0292	1.7251	.9208				1.097		
30	-2.82	2.84	9.14	46.96	53.26	1.9033	.4158	.0489	.0128	.0128	1.7144	.9625	.9595	-0000				
50	-1.78	3.1			39.14				.0220	.0178	1.6444	.9292	.9240	-0145			7 1.022	
70	07			17.31	26.91	1.5335	.4933	.1425	.0386	.0320	1.5122	.6387	8291	.0240	.6935	.710	5 1.116	7 .6690
85	•76	4.36			19.74	1.4420	5035		•0536		1.4136		.7030		.6836		4 1-175	
90	.86	4.3				1•4148				.0482	1.3883	-6711	.6556	. 0413		. 580	9 1.193	6 .6717
95	.51	4.1	18.45	3.25	17.48	1.3890	.5125	.2721	• 0 <b>59</b> 5	.0493	1.3741	-6416			.6773	.561	1 :-210	6786
		1.000	HC00-1															
			WCOP-1			P02/	EFF-AD								STA-1 S	TA-2		SLANT-2
		a.L.i.s.		SOFT	LUL	201	*	×									CEGREE	DEGREE
		8120-0	191.98	43.29	1 1620	1.5706	85.404	04.52										
				430-5	1.1029	7.2120	03.470	80.32							5.0	6.0	86.05	95.02
STA	TOR																	
STA		DTA-2	V-1	V-2	VM-1	VM-2	V0-1	V <b>9-</b> 2	<b>8-</b> 1	B-2	B1-1	B+-2	V:-1		V01-1			U+2
	DIA-1	DIA-2	V-1 FT/SEC !	V-2 FT/SEC /	VM-1 FT/SEC 1	VM-2 FT/SEC !	VO-1 FT/SEC /	<b>∀9−</b> 2 FT/SEC (	JEGRÉE D	B-2 EGREE (	B1-1 E <b>GREE</b> (	B1-2 EFREE						
STA %span 5	DIA-1	(N	FT/SEC !	T/SEC !	T/SEC 1	TT/SEC	VO-1 FT/SEC ' 921.1	V0-2 FT/SEC ( →21.1	JEGRÉE D	EOREE C	-22.64	44.35	762.3	971.9	293.4	-679.	FY/SEC 627.6	FT/5E4 656.3
% SPAN	DIA-1 IN 1 17.720	N 18.580	FT/SEC	695.5	703.4 703.6	694.8 719.4	921.1 893.1	**************************************	52.64 49,91	#1.77 2.33	-22.64 -17.91	44.35 42.00	762.3 790.0	971.9 948.0	293.4 242.9	-679. -647.	FT/SEC 627.6 6 650.7	656.3 677.1
% SPAN 5	DIA-1 IN 17.720 18.350	18.580 19.110	FT/SEC !	695.5 720.1	703.4	694.8 719.4 734.0	921.1 921.1 893.1 851.2	*7/SEC ( *21.1 29.5 52.3	52.64 49.91 47.41	#1.77 2.33 4.07	-22.64 -17.91 -12.65	44.35 44.35 42.00 41.40	762.3 790.0 802.5	971.9 948.0 978.5	293.4 293.4 242.9 175.6	-679. -679. -647.	FT/SEC 627.6 6 650.2 1 675.1	656.3 677.1 699.4
% SPAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	FT/SEC / 1159.1 1167.3 1156.3 1097.3	695.5 720.1 735.9 757.5	703.4 703.4 751.6 782.4 825.1	719.4 734.0 755.1	921.1 921.1 893.1 851.2 722.9	77/SEC -21.1 29.5 52.3 61.2	52.64 49.91 47.41 41.20	-1.77 2.33 4.07 4.63	-22.64 -17.91 -12.65 1.79	44.35 42.00 41.40 42.99	762.3 762.3 790.0 802.3 827.2	971.9 948.0 978.5 1032.5	293.4 293.4 242.9 175.6 -26.1	-679. -647. -647. -704.	FT/SEC 627.6 6 650.2 1 675.1	656.3 677.1 699.4 765.3
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	N 18.580 19.110 19.740 21.600 24.200	FT/SEC / 1159.1 1167.3 1156.3 1097.3 1008.8	7/SEC / 695.5 720.1 735.9 757.5 750.2	703.4 703.4 751.6 782.4 825.1 805.6	719.4 734.0 755.1 748.5	921.1 921.1 893.1 851.2 722.9 607.2	*T/SEC ( *21.1 29.5 52.3 61.2 50.3	52.64 49.91 47.41 41.20 36.99	#1.77 2.33 4.07 4.63 3.84	-22.64 -17.91 -12.65 1.79 16.72	44.35 42.00 41.40 42.99 47.15	762.3 762.3 790.0 802.5 827.2 842.8	971.9 971.9 948.0 978.5 1032.5 1101.0	FT/SEC 293.4 242.9 175.6 -26.1 -242.1	-647. -647. -647. -704. -807.	FT/SEC 627.6 650.2 675.1 749.6 2 849.3	656.3 677.1 499.4 765.3 657.4
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	N 18.580 19.110 19.740 21.600 24.200 26.880	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 889-8	7/SEC / 695.5 720.1 735.9 757.5 750.2 666.6	703.4 703.4 751.6 782.4 825.1 805.6 726.7	719.4 719.4 734.0 755.1 748.5 666.1	721.1 921.1 893.1 851.2 722.9 607.2 497.7	77/SEC ( -21.1 29.5 52.3 61.2 50.3 25.4	52.64 99.91 47.41 41.20 36.99 34.39	2.33 4.07 4.63 3.84 2.17	-22.64 -22.64 -17.91 -12.65 1.79 16.72 31.84	44.35 42.00 41.40 42.99 47.13 54.28	762.3 790.0 802.5 827.2 842.8 857.4	971.9 971.9 968.0 978.5 1032.5 1101.0	77/SEC 293.4 242.9 175.6 -26.1 -242.1 -951.5	-679. -679. -647. -704. -807. -927.	FY/SEC 627.6 627.6 650.2 1 675.1 749.6 2 849.3	656.3 677.1 699.4 765.3 857.4 952.4
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 25.660	N 18.580 19.110 19.740 21.600 24.200 26.880 28.900	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 889-8 779-7	7/SEC / 695.5 720.1 735.9 757.5 750.2 666.6 568.3	703.4 703.4 731.6 782.4 825.1 805.6 726.7 636.4	719.4 719.4 734.0 755.1 748.5 666.1	921.1 921.1 893.1 851.2 722.9 607.2 497.7	77/SEC ( -21.1 29.5 52.3 61.2 50.3 25.4	52.64 99.91 47.41 41.20 36.99 34.39 35.30	-1.77 2.33 4.07 4.63 3.84 2.17	-22.64 -17.91 -12.65 1.79 16.72 31.84	44.35 42.00 41.40 42.99 47.13 54.28 60.53	762.3 790.0 802.5 827.2 842.8 857.4 856.2	971.9 968.0 978.5 1032.5 1101.0 1142.2 1154.6	77/SEC 293.4 242.9 175.6 -26.1 -242.1 -451.5	-679. -647. -647. -704. -807. -927.	FT/SEC 627.6 650.1 675.1 749.6 2 849.3 9 949.4	636.3 677.1 699.4 765.3 657.4 952.4
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 26.660 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 889-8 779-7 750-0	7/SEC / 695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0	703.4 703.4 731.6 782.4 825.1 805.6 726.7 636.4 603.7	719.4 734.0 755.1 748.5 666.1 567.9	7/SEC 921-1 893-1 851-2 722-9 607-2 497-7 450-4	77/SEC ( -21.1 29.5 52.3 61.2 50.3 25.4	52.64 99.91 47.41 41.20 36.99 34.39 35.30	#1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96	44.35 42.00 41.40 42.99 47.13 54.28 60.53 62.69	742.3 742.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4	77/\$EC 971.9 948.0 978.5 1032.5 1101.0 1142.2 1154.6 1156.7	7/\$EC 293.4 242.9 175.6 -26.1 -242.1 -572.1 -602.8	-647. -647. -647. -704. -807. -927. -1005.	FY/SEC 627.6 650.7 1 675.1 1 749.6 2 849.3 9 949.6 1 1022.5 5 1047.7	FT/\$E¢ 656.3 677.1 699.4 765.3 857.4 952.4 1024.0
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 25.660	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 889-8 779-7 750-0	7/SEC / 695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0	703.4 703.4 731.6 782.4 825.1 805.6 726.7 636.4 603.7	719.4 734.0 755.1 748.5 666.1 567.9	7/SEC 921-1 893-1 851-2 722-9 607-2 497-7 450-4	77/SEC ( -21.1 29.5 52.3 61.2 50.3 25.4	52.64 99.91 47.41 41.20 36.99 34.39 35.30	-1.77 2.33 4.07 4.63 3.84 2.17	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96	44.35 42.00 41.40 42.99 47.13 54.28 60.53	742.3 742.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4	77/\$EC 971.9 948.0 978.5 1032.5 1101.0 1142.2 1154.6 1156.7	7/\$EC 293.4 242.9 175.6 -26.1 -242.1 -572.1 -602.8	-647. -647. -647. -704. -807. -927. -1005.	FT/SEC 627.6 650.1 675.1 749.6 2 849.3 9 949.4	FT/\$E¢ 656.3 677.1 699.4 765.3 857.4 952.4 1024.0
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.14c 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 1159-1 1159-1 1167-3 1156-3 1097-3 1008-8 880-8 779-7 750-0 731-1	75.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7	734.0 734.0 755.1 748.5 666.1 567.9 530.5	721.1 921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9	77/SEC -21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7	52.64 49.91 47.41 41.20 36.99 34.39 35.30 36.40 37.16	#1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96 47.22	44.35 42.00 41.40 42.99 47.13 54.28 60.53 62.69 64.30	762.3 790.0 802.5 827.2 842.8 857.4 856.2 858.1	771.9 971.9 948.0 978.5 1032.5 1101.0 1142.2 1154.6 1156.7	77.5EC 293.4 242.9 175.6 -26.1 -451.5 -572.1 -602.6 -629.8	FT/SEC -679. -647. -647. -704. -807. -927. -1005. -1049.	FT/SEC 627.8 650.2 1 675.1 1 749.6 2 449.3 0 1022.5 6 1047.7 8 1071.4	FT/SE4 656.3 677.1 699.4 765.3 857.4 952.4 1024.0 1048.0 1072.5
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.14c 23.970 26.790 26.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 26.880 28.900 29.600 30.270	FT/SEC   1159-1   1167-3   1156-3   1097-3   1098-8   880-8   779-7   750-0   731-1   DEV	FYSEC   695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7	734.0 734.0 755.1 748.5 666.1 567.9 530.5	721.1 921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9	77/SEC -21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7	52.64 49.91 47.41 41.20 36.99 34.39 35.30 36.40 37.16	#1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.37	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96 47.22	49.35 42.00 41.40 42.99 47.13 54.28 60.53 62.69 64.30	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1	971.9 948.0 978.5 1032.5 1101.0 1142.2 1154.6 1156.7 1165.1	7/\$EC 293.4 242.9 175.6 -26.1 -242.1 -572.1 -602.8	-647. -647. -647. -704. -807. -927. -1005.	FY/SEC 627.6 650.7 1 675.1 1 749.6 2 849.3 9 949.6 1 1022.5 5 1047.7	FT/\$E¢ 656.3 677.1 699.4 765.3 857.4 952.4 1024.0
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.14c 23.970 26.860 29.570 30.240 INCS DEGREE (	18.580 19.110 19.740 21.600 26.880 26.880 29.600 30.270	FT/SEC   1159-1   1167-3   1156-3   1098-8   880-8   779-7   750-0   731-1   DEV   DEGREE   [	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN (DEGREE (	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7	734.0 734.0 755.1 748.5 666.1 567.9 530.5 505.2	921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9 441.6	77/SEC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 DME6A-8	52.64 49.91 47.41 41.20 36.99 34.39 35.30 36.40 37.16 LOSS-P	-1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30 2.57 LOSS-P	-22.64 -17.91 -12.65 16.72 31.84 41.96 44.96 47.22 PO2/0	49.35 42.00 41.40 42.99 47.13 54.28 60.53 62.69 64.30	762.3 790.0 802.5 827.8 842.8 857.4 856.2 853.4 858.1	77.55 971.9 948.0 970.5 1032.5 1101.0 1142.2 1154.6 1156.7 1165.1 EFF-P	293.4 242.9 175.6 -26.1 -242.1 -572.1 -602.6 -629.8	FT/SEC -679. -647. -647. -704. -807. -927. -1005. -1049. M-2	FT/SEC 627.8 650.2 1 749.3 2 849.3 9 949.3 0 1022.5 5 1047.7 8 1071.4	FT/SE¢ 658,3 677,1 698,4 765,3 857,4 952,4 1024.0 1048.8 1072.5 M*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA-1 IN 17.720 18.350 19.070 21.19c 23.970 26.660 29.570 30.240 INCS DEGREE ( 2.58	[N 18.580 19.110 19.740 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 6.56	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 889-8 779-7 750-0 731-1 DEV DEGREE (14-74	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN (DEGREE   54.41	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7	694.8 719.4 734.0 755.1 748.5 666.1 567.9 530.5 505.2	921.1 921.1 893.1 851.2 722.9 607.2 497.7 450.9 444.9 441.6 D-FAC (	77/SEC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 DME6A-8 .1427	52.64 49.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339	-1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30 2.57 LOSS-P ROFILE .0237	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96 47.22 PO2/0 PO1 5H	49.35 42.00 41.40 42.99 47.13 54.28 60.53 62.69 64.30 WESA-8	762.3 790.0 802.5 827.2 842.8 857.4 856.2 858.1 EFF-AD TOTAL	971.9 948.0 978.5 1032.5 1101.0 1142.2 1154.6 1156.7 1165.1 EFF-P STATIC .8350	293.4 242.9 175.6 -26.1 -242.1 -451.5 -572.1 -602.8 -629.8	-647. -647. -647. -704. -807. -927. -1005. -1027. -1049. M-2	FT/SEC 627.8 650.8 1 675.1 1 749.6 2 849.3 9 949.3 5 1042.5 5 10471.4 MI-1	FT/SE¢ 656,3 677,1 679,4 765.3 857.4 952.4 1024.0 1048.8 1072.5 M*-8
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA-1 IN 17.720 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 2.58 1.85	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270 INCM DEGREE 6.56	FT/SEC / 1159-1	FT/SEC ( 695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.9 505.7 TURN ( DEBREE ( 584.4 147.58	703.4 703.4 781.6 782.1 805.6 726.7 636.4 603.7 682.7 CAMBER S DEGREE 62.57 59.65	694.8 719.4 734.0 755.1 748.5 666.1 567.9 505.2 60LIDTY 2.1058 2.0264	921-1 921-1 893-1 851-2 722-9 607-2 497-7 450-4 444-6 D-FAC -5885 .5616	77/SEC ( -21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8	52.64 49.91 47.41 41.20 36.99 34.39 35.30 36.40 37.16 LOSS-P TOTAL P	-1.77 2.33 4.63 3.84 2.17 1.92 2.37 Loss-P Rofile .0339	-22.64 -17.91 -12.65 1.79 16.72 31.84 41.96 47.22 PO2/0 PO1 5M .9093	44.35 42.00 41.40 42.09 47.13 54.28 62.53 62.69 64.30 MESA-8 OCK	762.3 790.0 802.5 827.2 842.8 857.4 856.2 858.1 EFF-AD TOTAL	FT/SEC 971.9 948.9 978.5 1032.5 1101.0 1142.2 1154.6 1156.7 1165.1 EFF-P STATIC -8350 -7921	293.4 243.9 175.6 -26.1 -242.1 -51.5 -72.1 -629.8 M-1 1.0556 1.0608	-647. -647. -647. -707. -707. -927. -1027. -1049. -1049. -591. -614.	FT/SEC 627.8 650.2 675.1 749.0 2 849.3 9 949.6 6 1047.7 8 1071.4 M-1 9 .7002	FT/SE¢ 656-3 677-1 679-4 765-3 677-4 952-4 1024-0 1048-8 1072-5 M*-2 .8271 .8258
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 IN 17-720 18-350 19-070 21-180 23-970 28-860 29-570 30-240 INCS DEGREE [ 2.58 1.85 1.82	IN 18-580 19-119-740 21-600 24-200 26-880 29-600 30-270 INCM DEGREE 6-56 6-10 5-57	FT/SEC / 1159-1	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.3 531.9 505.7 TURN (DEGREE   54.41 47.53	703.4 703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER S DEGREE 62.57 59.65 57.14	666-1 567-9 666-1 567-9 505-2 60LIDTY 2-1058 2-0264 1-9438	921.1 921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC .5885 .5878	77.5EC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 DMEGA-8 .1427 .1778 .1819	52.64 9.91 47.41 41.20 36.99 35.30 36.40 37.16 LOSS-P TOTAL P .0339 .0467	#1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30 2.57 LOSS-P ROFILE .0237 .0377	-22.64 -22.64 -17.65 1.79 16.72 31.84 41.96 44.96 47.22 PO2/8 PO1 5H .9280 .9085	44.35 42.00 41.40 47.13 54.28 60.53 62.69 64.30 WEA-B 00CK .0827 .0829	762.3 790.9 802.5 827.2 842.8 857.4 856.2 853.4 858.1 EFF-AD TOTAL .0000 .0000	971.9 971.9 948.5 1032.5 1101.0 1142.2 1154.6 1156.7 1165.1 eff-P 57ATIC .3350 .7810	293.4 293.4 242.9 175.6 -26.1 -451.5 -572.1 -602.8 -629.8 M-1 1.0556 1.0608 1.0455	FT/SEC -679. -647. -704. -807. -927. -1049. 1049. M-2 .591. .614.	FT/SEC 627.6 657.6 655.1 749.6 2 449.3 0 1022.9 5 1047.7 8 1071.4 M*-1 9 .7002 3 .7233 5 .7302	FT/SE4 658-3 658-3 677-1 765-3 857-4 952-4 1024-0 1048-8 1072-5 M*-2 -8271 8258 8370
\$\sec{\sec\$PAN} 5 10 15 30 50 70 85 90 95 \$\sec{\sec{\sec\$PAN}} 5 10 15 30 50 10 15 30 15 30	DIA-1 IN 17.720 18.350 19.070 21.18; 23.970 26.790 26.860 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51	IN 18.580 19.110 19.740 21.600 24.200 26.8900 29.600 30.270 INCM DEGREE 6.56 6.10 5.57	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 880-8 779-7 750-0 731-1 DEV DEGREE (14-74 16-31 19-53 18-65	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.6 531.0 505.7 TURN (DEGREE ( 54.41 47.58 43.33 36.57	703.4 703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER 9000000000000000000000000000000000000	694.8 7194.0 734.0 755.1 748.5 666.1 567.9 530.5 505.2 2.026 2.026 1.9438 1.7508	FT/SEC ' 921.1 93.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC ( .5885 .5616 .378	77/SEC (21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1778 .1819 .1359	52.64 9.91 41.20 36.99 35.30 37.16 LOSS-P TOTAL P .0339 .0438 .0438	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P #0FILE .0237 .0337 .0377	-22.64 -17.65 1.79 16.72 31.84 41.96 44.96 47.22 P02/0 P01 SH .9280 .9083 .9085	42.90 42.90 42.90 42.90 47.13 59.53 62.69 64.30 WEEA-B DCK .0427 .0427 .0351	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 EFF-AD TOTAL .0000 .0000	FY/SEC   971.9 948.0 978.5 1032.5 1101.0 1154.6 1156.7 1165.1 SFF-P 57AYIC -8350 .7921 .7810	FT/SEC 293.4 242.9 175.6 175.6 -26.1 -242.1 -572.1 -602.8 -629.8 M-1 1.0556 1.0608 1.0458 1.0488	FT/SEC -679. -647. -647. -707. -927. -1005. -1027. -1049. 6149. 6149. 6591.	FT/SEC 627.8 627.8 657.1 1 749.6 2 449.3 0 1022.5 6 1047.7 8 1071.4 M'-1 9 .7002.5 7.7303 7.7303	FT/SE¢ 658,3 679,4 765,3 857,4 1024,0 1048,8 1072,5 M*-2 .8271 .8271 .8370 .8376
% SPAN 5 10 15 30 50 95 \$ SPAN 5 10 15 30 50 50	DIA-1 IN 17.720 18.350 19.070 21.140 25.970 26.860 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55	[N 18.580 19.1% 21.600 24.200 26.890 29.600 30.270 INCM DEGREE 6.56 6.10 5.57 3.32 2.97	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1098-8 889-8 779-7 750-0 731-1 DEFEE (16-31 19-53 18-65 14-60	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN 626REE ( 47.58 43.33 36.57 33.15	703.4 703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER 9060REE 62.57 59.65 57.14 51.80 44.78	FT/SEC   694.8	921.1 921.1 893.1 651.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC .5885 .5616 .5378 .4336	77.5EC ( 21.1 29.1 29.3 61.2 50.3 61.2 50.3 61.2 22.7 0MEGA-6 .1427 .1778 .1819 .1359 .0734	52.64 49.91 47.41 41.20 36.99 35.30 36.40 37.16 LOSS—P TOTAL P 10339 .0438 .0437	#1.77 2.37 4.07 4.63 3.84 2.17 1.92 2.30 2.30 2.57 LOSS-P ROFILE .0237 .0339 .037	DEGREE 6 -22.64 -17.91 -12.65 -1.79 -16.78 -1.96 -41.96 -47.22 	#5.35 #2.00 #1.40 #2.99 #7.13 50.53 62.69 64.30 #E6A-8 PCK .0427 .0351 .0300	762.3 762.3 790.9 802.5 827.2 842.8 857.4 856.2 853.4 658.1 EFF-AD 101AL .0000 .0000	FY/SEC   971.9	77.5EC 293.4 293.4 292.9 175.6 -26.1 -242.1 -951.5 -629.8 Med 1.0556 1.0608 1.0455 .9882	FT/SEC -677. -647. -708. -708. -1007. -1027. -1027. -1049. M-2 .591. .614. .629. .648.	FY/SEC 627.6 627.6 627.6 627.6 627.6 627.6 627.6 627.7 649.3	FT/SE4 656,3 677,1 699,4 765,3 877,4 952,4 1024.0 1048.8 1072.5 M'-2 .8271 .8258 .8370 .858
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 IMCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.19	IN 18.580 19.740 21.600 24.200 25.880 270 INCM DEGREE 6.56 6.56 6.56 6.56 6.56 6.56 6.56 6.	FT/SEC / 1159-1	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN ( EGREE ( 54.41 47.58 43.33 36.57 33.15 52.22	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 (AMBER S) EGREE 62.57 59.65 57.14 51.80 44.78	719-6 719-4 719-4 734-0 755-1 748-5 666-1 567-9 530-5 505-2 50LIDTY 2-1058 2-0264 1-9438 1-7508 1-7508 1-7508 1-7508	921.1 921.1 893.1 251.2 722.9 607.2 497.7 450.4 441.6 0-FAC .5885 .5616 .5378 .4736 .4359	77.5EC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1778 .1819 .1359 .0734 .0547	52.64 49.41 47.41 41.20 36.99 35.30 36.40 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0397	#1.77 2.33 4.07 4.63 3.84 2.17 1.92 2.30 2.57 Loss-P ROFILE .0339 .0377 .0377	-22.64 -17.96 -17.96 -1.79 16.72 -11.96 41.96 44.96 47.22 PO2.5M .9289 .9289 .9365 .9698 .9698	#5.55 #2.00 #2.00 #2.00 #2.09 #7.13 50.53 62.69 64.30 #88A-8 00CK .0827 .0828 .0000 .8000	762.3 790.9 802.5 827.2 842.8 857.4 856.2 853.4 858.1 EFF-AD 10100 .0000 .0000	FY/SEC 971.9 948.9 978.5 1032.5 1101.0 1154.6 1156.7 1165.1 FFP-P 57A71C .8359 .7921 .9109 .8781 .9006	77.5EC 293.4 293.9 293.9 175.6 -26.1 -242.1 -951.5 -572.1 -602.6 -629.8 M-1 1.0556 1.0608 1.0455 .9882 .9882	FT/SEC -677. -647. -647. -704. -927. -1005. -1027. -1049. M-2 .591. .614. .629. .652.	FY/SEC 627.6 657.6 657.6 657.6 657.6 675.1 749.6 2 449.3 6 1047.7 8 1071.4 M - 1 9 .7003 .7233 .7302 .7539 7 .7576	FT/SE¢ 656,3 677,4 765,3 765,3 952,4 1024,0 1048,8 1072,5 M*-8 .8271 .8258 .8370 .8896 .9846
\$\sec{SPAN} 5 10 15 30 50 70 85 90 95 \$\sec{SPAN} 5 10 15 30 50 70 85 90 85	DIA-1 IN 17.720 18.350 19.070 21.180 23.970 26.860 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.18 -1.39	IN 18.580 19.190 19.740 21.600 24.200 28.8900 28.900 INCM EGREE 6.56 6.56 5.57 3.32 2.97 5.12	FT/SEC / 1159-1 1157-3 1156-3 1097-3 1098-8 880-8 779-7 750-0 731-1 DEV DEGREE ( 14-74 16-31 19-53 18-65 14-60 15-07	FT/SEC   695.5   720.1   735.9   757.5   750.2   666.6   568.5   531.0   505.7   TURN (DEGREE   147.58   43.33   36.57   33.15   32.22   33.38	703.4 751.6 762.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER S DEGREE 62.57 59.65 57.14 51.80 44.78 44.34	719-66-67-755-17-755-17-755-17-755-17-755-17-755-25-17-755-25-17-75-17-7	FT/SEC 921.1 921.1 893.1 251.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC 0.5885 .5618 .5378 .4794 .4336 .4366	77.5EC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1819 .1359 .0547 .0614	52.64 49.91 41.20 36.99 34.39 35.30 36.40 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0237 .0316	#1.77 2.33 4.07 4.63 3.84 2.17 2.19 2.30 2.57 LOSS-P ROFILE .0237 .0377 .0377 .0337	-22.64 -22.64 -17.65 1.79 16.72 31.84 41.96 44.96 47.22 P02/8 P01 5H .9280 .9365 .9365 .9698	### 155 ### 15	762.3 790.9 802.5 827.2 842.8 856.2 856.2 858.1 FFF-AD 70TAL .0000 .0000 .0000	F7/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1156.7 1165.1 EFF-P TATIC .8350 .7810 .8109 .8761 .9004	7748C 293.4 242.9 175.6 -26.1 -242.1 -651.5 -629.8 M-1 1.0556 1.0453 .9882 .8988 .7744	FT/SEC -677. -647. -708. -708. -1007. -1027. -1027. -1049. M-2 .591. .614. .629. .648.	FY/SEC 627.6 627.6 655.1 1 749.6 2 849.3 9 1022.9 5 1047.7 6 1047.7 8 1071.4 M+-1 9 .7033 7 .7338 7 .7338 7 .7338 7 .7338	FT/SE4 658-3 677-1 765-3 765-3 857-4 1024-0 1048-8 1072-5 M'-2 8271 8258 8370 8876 9514 9514 9886
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 90	DIA-1 IM 17.720 18.350 19.070 21.19c 23.970 26.790 26.660 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.14 -1.39 -1.39	[N 18.580 19.120 19.740 21.600 24.200 26.880 27.600 30.270 INCM EGREE 6.56 6.10 5.57 3.32 2.97 3.120 6.21	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 880-8 779-7 750-0 731-1 DEV DEGREE (14-74 16-31 19-53 18-65 14-60 15-07 16-98 18-02	FT/SEC   695.5   720.1   735.9   757.5   750.2   666.6   568.5   531.0   505.7   TURN (DEGREE   47.58   43.33   36.57   33.15   32.22   33.38   34.10	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER 9060REE 62.57 59.65 57.14 51.80 44.78 45.34 45.97	694.8 7194.0 734.0 755.1 748.5 567.9 530.5 505.2 2.0264 2.0264 1.9438 1.7508 1.5473 1.3862 1.2853	FT/SEC ' 921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC ( .5885 .5616 .4794 .4336 .4356 .4569	77.5EC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 ) MEGA-B .1427 .1718 .1359 .0734 .0514 .0977	52.64 9.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0387 .0316 .0389	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P ROFILE .0237 .0377 .0377 .0377	-22.64 -12.65 -12.65 1.79 16.72 31.84 41.96 41.96 47.22 P02.0 P01.5H .9280 .9085 .9085 .9365 .9698 .9365 .9365	#2.90 #2.90 #2.90 #2.90 #2.99 #7.13 59.25 60.53 62.69 64.30 #28A-B PCK .0351 .0300 .9000 .9000	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 FFF-AD TOTAL .0000 .0000 .0000 .0000	FY/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1156.7 1165.1 EFF-P 57ATIC -8109 -8781 -9006 -8268	FT/SEC 293.4 242.9 175.6 -26.1 -242.5 -629.8 -629.8 M-1 1.0556 1.0658 1.0455 .9882 .8788 .6784 .6784	FT/SEC -677. -647. -704. -704. -1005. -1027. -1027. -1049. -1	FY/SEC 627.8 627.8 6575.1 749.6 2 449.3 9 1022.5 1047.7 6 1071.4 9 .703.5 .733.7 .7478 6 .7424	FT/SE¢ 658,3 679,4 765,3 857,4 1024,0 1048,8 1072,5 M*-8 .8271 .8271 .8370 .8376 .9846
\$\sec{SPAN} 5 10 15 30 50 70 85 90 95 \$\sec{SPAN} 5 10 15 30 50 70 85 90 85	DIA-1 IN 17.720 18.350 19.070 21.180 23.970 26.860 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.18 -1.39	IN 18.580 19.190 19.740 21.600 24.200 28.8900 28.900 INCM EGREE 6.56 6.56 5.57 3.32 2.97 5.12	FT/SEC / 1159-1 1167-3 1156-3 1097-3 1008-8 880-8 779-7 750-0 731-1 DEV DEGREE (14-74 16-31 19-53 18-65 14-60 15-07 16-98 18-02	FT/SEC   695.5   720.1   735.9   757.5   750.2   666.6   568.5   531.0   505.7   TURN (DEGREE   147.58   43.33   36.57   33.15   32.22   33.38	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER 9060REE 62.57 59.65 57.14 51.80 44.78 45.34 45.97	719-66-67-755-17-755-17-755-17-755-17-755-17-755-25-17-755-25-17-75-17-7	FT/SEC 921.1 921.1 893.1 251.2 722.9 607.2 497.7 450.4 444.9 441.6 D-FAC 0.5885 .5618 .5378 .4794 .4336 .4366	77.5EC ( 21.1 29.5 52.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1819 .1359 .0547 .0614	52.64 49.91 41.20 36.99 34.39 35.30 36.40 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0237 .0316	#1.77 2.33 4.07 4.63 3.84 2.17 2.19 2.30 2.57 LOSS-P ROFILE .0237 .0377 .0377 .0337	-22.64 -22.64 -17.65 1.79 16.72 31.84 41.96 44.96 47.22 P02/8 P01 5H .9280 .9365 .9365 .9698	#2.90 #2.90 #2.90 #2.90 #2.99 #7.13 59.25 60.53 62.69 64.30 #28A-B PCK .0351 .0300 .9000 .9000	762.3 790.9 802.5 827.2 842.8 856.2 856.2 858.1 FFF-AD 70TAL .0000 .0000 .0000	F7/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1156.7 1165.1 EFF-P TATIC .8350 .7810 .8109 .8761 .9004	FT/SEC 293.4 242.9 175.6 -26.1 -242.5 -629.8 -629.8 M-1 1.0556 1.0658 1.0455 .9882 .8788 .6784 .6784	FT/SEC -677. -647. -647. -704. -704. -1005. -1027. -1049. M-2 .591. .629. .648. .571. .648. .648. .548.	FY/SEC 627.8 627.8 6575.1 749.6 2 449.3 9 1022.5 1047.7 6 1071.4 9 .703.5 .733.7 .7478 6 .7424	FT/SE¢ 658,3 679,4 765,3 857,4 1024,0 1048,8 1072,5 M*-8 .8271 .8271 .8370 .8376 .9846
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 90	DIA-1 IM 17.720 18.350 19.070 21.19c 23.970 26.790 26.660 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.14 -1.39 -1.39	IN 18.580 19.740 21.600 24.200 26.880 28.900 27.	FT/SEC / 1159-1	FT/SEC   695.5 720.1 735.9 757.5 750.2 666.6 568.6 558.7 TURN (	703.4 751.6 762.4 825.1 805.6 766.7 636.4 603.7 582.7 (AMBER S) (COMPARIED S) 59.65 57.14 51.80 44.34 45.37 46.76	719-6 719-6 719-6 719-6 719-6 719-6 719-6 730-0 755-1 567-9 30-5 705-2 50LIDTY 2-1038 2-0264 1-9438 1-7508 1-7508 1-7508 1-2553 1-2553 1-2271	FT/SEC 921.1 921.1 893.1 722.9 607.2 497.7 450.4 441.6 D-FAC 0 .5885 .5616 .5378 .4794 .4359 .4860 .5169	77.5EC ( 21.1 29.5 52.3 61.2 50.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1819 .1359 .07547 .0814 .0977 .1103	52.64 9.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0387 .0316 .0389	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P ROFILE .0237 .0377 .0377 .0377	-22.64 -12.65 -12.65 1.79 16.72 31.84 41.96 41.96 47.22 P02.0 P01.5H .9280 .9085 .9085 .9365 .9698 .9365 .9365	#2.90 #2.90 #2.90 #2.90 #2.99 #7.13 59.25 60.53 62.69 64.30 #28A-B PCK .0351 .0300 .9000 .9000	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 FFF-AD TOTAL .0000 .0000 .0000 .0000	FY/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1154.6 1155.1 EFF-P TATIC .8359 .7921 .7810 .8109 .8781 .9004 .8268 .8141	77.5EC 293.4 242.9 175.6 -26.1 -242.1 -651.5 -572.1 -602.8 -629.8 Mei 1.0556 1.0608 1.0455 .9882 .9882 .6784 .6515 .6341	FT/SEC -677. -647. -647. -704. -927. -1005. -1027. -1049. M-2 .591. .629. .652. .486. .452. .429.	FY/SEC 627.8 627.8 6575.1 749.6 2 449.3 9 1022.5 1047.7 6 1071.4 9 .703.5 .733.7 .7478 6 .7424	FT/SE¢ 650-13 677-14 765-3 765-3 952-4 1024-0 1048-8 1072-5 M*-8 .8271 .8258 .8370 .8896 .9584 .9846 .9903
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 90	DIA-1 IN 17-720 18-350 19-070 21-18-2 23-970 26-860 29-570 30-240 INCS DEGREE ( 2.58 1.65 1.62 -1.51 -2.55 -3.18 -1.3904	IN 18.580 19.130 19.740 21.600 24.200 28.8900 29.600 30.270 INCM EGREE 6.56 6.10 5.57 3.32 2.97 3.12 6.21 6.73 NCOR-1	FT/SEC / 1159-1	FT/SEC   695.5   720.1   735.9   757.5   750.2   666.6   568.5   531.0   505.7   TURN (DEGREE   54.54   47.58   43.33   36.57   33.15   32.22   33.38   34.10   34.59   WC/A-1	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER S DEGREE 62.57 59.65 57.14 51.80 44.78 45.34 45.97 46.76	719-66-67-755-174-0755-174-0755-174-0755-1756-2-02-60-10-74-38-1750-2-1756-2-1756-2-1756-2-1756-2-1756-2-1756-2-1756-2-1756-2-1756-2-1756-2-1755-3-17	FT/SEC ' 921.1 893.1 851.2 722.9 607.2 450.4 444.9 441.6 D-FAC ( .58655378 .4794 .4336 .5169 .5416 EFF-AD	77.5EC (21.1 29.5 52.3 61.2 50.3 19.0 21.2 22.7 0MEGA-8 .1427 .1819 .1359 .0534 .0977 .1103	52.64 9.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0387 .0316 .0389	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P ROFILE .0237 .0377 .0377 .0377	-22.64 -12.65 -12.65 1.79 16.72 31.84 41.96 41.96 47.22 P02.0 P01.5H .9280 .9085 .9085 .9365 .9698 .9365 .9365	#2.90 42.90 42.90 42.99 47.13 59.25 60.53 62.69 64.30 #28A-B DCK .0351 .0300 .0300 .0300 .0300	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 FFF-AD TOTAL .0000 .0000 .0000 .0000	FY/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1154.6 1155.1 EFF-P TATIC .8359 .7921 .7810 .8109 .8781 .9004 .8268 .8141	77.5EC 293.4 242.9 175.6 -26.1 -242.1 -651.5 -572.1 -602.8 -629.8 Mei 1.0556 1.0608 1.0455 .9882 .9882 .6784 .6515 .6341	FT/SEC -679. -647. -647. -704. -704. -1005. -1007. -1007. -1049. -1049. -649. -649. -649. -649. -649. -649. -649. -649. -649. -649.	FY/SEC 627.8 627.8 627.8 627.8 627.8 627.8 627.7 629.3 629.3 629.3 709.3	FT/SE4 658-3 658-3 677-1 765-3 857-4 1024-0 1048-8 1072-5 M'-2 8271 8258 8370 8896 9514 9886 9860 9903 SLANT-2
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 90	DIA-1 IN 17-720 18-350 19-070 21-18-2 23-970 26-860 29-570 30-240 INCS DEGREE ( 2.58 1.65 1.62 -1.51 -2.55 -3.18 -1.3904	IN 18.580 19.130 19.740 21.600 24.200 28.8900 29.600 30.270 INCM EGREE 6.56 6.10 5.57 3.32 2.97 3.12 6.21 6.73 NCOR-1	FT/SEC   1159-1   1167-3   1156-3   1156-3   1097-3   1008-8   889-8   779-7   750-0   731-1   1008-1	FT/SEC / 695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN (DEGREE ( 47.58 43.33 36.57 33.15 32.22 33.38 34.10 34.59	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 CAMBER S DEGREE 62.57 59.65 57.14 51.80 44.78 45.34 45.97 46.76	719-6 719-6 719-6 719-6 719-6 719-6 719-6 730-0 755-1 567-9 30-5 705-2 50LIDTY 2-1038 2-0264 1-9438 1-7508 1-7508 1-7508 1-2553 1-2553 1-2271	FT/SEC 921.1 921.1 893.1 722.9 607.2 497.7 450.4 441.6 D-FAC 0 .5885 .5616 .5378 .4794 .4359 .4860 .5169	77.5EC ( 21.1 29.5 52.3 61.2 50.3 61.2 50.3 25.4 19.0 21.2 22.7 0MEGA-8 .1427 .1819 .1359 .07547 .0814 .0977 .1103	52.64 9.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0387 .0316 .0389	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P ROFILE .0237 .0377 .0377 .0377	-22.64 -12.65 -12.65 1.79 16.72 31.84 41.96 41.96 47.22 P02.0 P01.5H .9280 .9085 .9085 .9365 .9698 .9365 .9365	#2.90 42.90 42.90 42.99 47.13 59.25 60.53 62.69 64.30 #28A-B DCK .0351 .0300 .0300 .0300 .0300	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 FFF-AD TOTAL .0000 .0000 .0000 .0000	FY/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1154.6 1155.1 EFF-P TATIC .8359 .7921 .7810 .8109 .8781 .9004 .8268 .8141	77.5EC 293.4 242.9 175.6 -26.1 -242.1 -651.5 -572.1 -602.8 -629.8 Mei 1.0556 1.0608 1.0455 .9882 .9882 .6784 .6515 .6341	FT/SEC -679. -647. -647. -704. -704. -1005. -1007. -1007. -1049. -1049. -649. -649. -649. -649. -649. -649. -649. -649. -649. -649.	FY/SEC 627.8 627.8 6575.1 749.6 2 849.3 949.3 1022.5 6 1047.7 8 1071.4 9.7 7.3 3 7.7 3 3 7.7 3 3 7.7 4 8 7 4 8 6 7 4 8 6 7 4 8 6 5 LANT-1	FT/SE4 658-3 658-3 677-1 765-3 857-4 1024-0 1048-8 1072-5 M'-2 8271 8258 8370 8896 9514 9886 9860 9903 SLANT-2
\$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 95 \$\sec{\sec{SPAN}}{5}\$ 10 15 30 50 70 85 90 90	DIA-1 IN 17.720 18.350 19.070 21.14c 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 2.58 1.85 1.22 -1.51 -2.55 -3.18 -1.39 -,3904	[N 18.580 19.180 21.600 24.200 24.200 25.880 28.900 30.270 INCM EGREE 6.56 6.50 5.57 3.92 2.97 3.90 5.12 6.73 NCOR-1	FT/SEC   1159-1   1167-3   1156-3   1156-3   1097-3   1008-8   889-8   779-7   750-0   731-1   1008-1	FT/SEC / 695.5 720.1 735.9 757.5 750.2 666.6 568.3 531.0 505.7 TURN ( DEGREE ( 54.41 33.33 36.57 33.15 32.22 33.38 34.10 34.59 WC/A-1 BM/SEC BGFT	703.4 751.6 782.4 825.1 805.6 726.7 636.4 603.7 582.7 (AMBER S 50.6 62.5 57.14 51.80 44.78 45.34 45.97 702/ T01	719-6 719-4 719-4 719-4 734-0 755-1 748-5 666-1 567-9 530-5 505-2 50LIDTY 2-1058 1-9438 1-7508 1-7508 1-2865 1-2553 1-2271	FT/SEC 921.1 921.1 893.1 851.2 722.9 607.2 497.7 450.4 444.9 441.6 0-FAC ( .5885 .5616 .5378 .4794 .4336 .5169 .5416 EFF-AD	77.5EC (21.1 29.1 52.3 61.2 50.3 19.0 21.2 22.7 0ME6A-8 .1427 .1778 .1819 .1359 .0754 .0977 .0814 .0977 .01103	52.64 9.91 41.20 36.99 34.39 35.30 37.16 LOSS-P TOTAL P .0339 .0467 .0387 .0387 .0316 .0389	#1.77 2.33 4.07 4.63 3.84 2.17 2.30 2.57 LOSS—P ROFILE .0237 .0377 .0377 .0377	-22.64 -12.65 -12.65 1.79 16.72 31.84 41.96 41.96 47.22 P02.0 P01.5H .9280 .9085 .9085 .9365 .9698 .9365 .9365	#2.90 42.90 42.90 42.99 47.13 59.25 60.53 62.69 64.30 #28A-B DCK .0351 .0300 .0300 .0300 .0300	762.3 790.0 802.5 827.2 842.8 857.4 856.2 853.4 858.1 FFF-AD TOTAL .0000 .0000 .0000 .0000	F7/SEC 971.9 948.0 978.5 1032.5 1101.0 1154.6 1154.6 1155.1 EFF-P TATIC .8359 .7921 .7810 .8109 .8781 .9004 .8268 .8141	77.5EC 293.4 242.9 175.6 -26.1 -242.1 -651.5 -572.1 -602.8 -629.8 Mei 1.0556 1.0608 1.0455 .9882 .9882 .6784 .6515 .6341	FT/SEC -679. -647. -647. -704. -704. -1005. -1007. -1007. -1049. -1049. -649. -649. -649. -649. -649. -649. -649. -649. -649. -649.	FY/SEC 627.8 627.8 6575.1 749.6 2 849.3 949.3 1022.5 6 1047.7 8 1071.4 9 . 7023 7 . 7338 . 7338 . 7438 6 . 7438	FT/SE4 656-3 677-1 679-1 765-3 857-4 1024-0 1048-8 1072-5 M*-2 .8271 .8258 .8370 .8514 .9846 .9860 .9903 SLANT-2 DEGREE

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ROT	OR						110%	or De	ssign 5	peea								
		DIA-2	V-1	V-2	VM-1	VM-2	V0~1	V0-2	8-1	8-2	81-1	B*-2	v*-1	V1-2	V01-1	V01-2	U <b>-1</b>	u <del>-</del> 2
% SPAN	IN	Ih	FT/SEC			FT/SEC I	FT/SEC	FT/SEC (	DEGRÉE (		EGREE I	DEGREE						
5 10				1268.7				1029.8	•00			-31.94		873.3				
15		16.790 17.580		) 1249.7   1212.6			•0		•00 •00	51.90 50.19		-26.75 -21.66	824.5 860.0		-499.4 -537.3			
30		19.910		1892.7			•0		.00	44.54	42.33				-647.5			
50		23.090					ŏ		.00		46.74		1079.1			-192.9		
70		26.260					. 0		.03	37.73	51.03		1178.9			-436.1		930.2
85		28.610					•0	441.8	•00		54.04		1245.0					1013.4
90 95		29.410 30.180		664.3			• 0 • 0	434.4 428.3	.00	46.88 41.87	55.01 55.89		1267.7 1289.8					1041.7
95	300130	34150	12000	047.	12000	-4//40	•0	-201.7	• (10	47.0.	33409	33,21	120740	13764	1000.0	-04047	1000.0	10020
~ ~~	INCS	INCH	JEV	TURN	CAMBER	SOLIDTY	D-FAC	0MEGA~B					EFF-AD		M=1	M-2	4*-1	M*-2
3.SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE								TOTAL 5		F00		3-6.	
10	-5.10 -4.23		4.25			2.4337	•1913 •2359		•06 <u>1</u> 4 •0378		1.6400	•8217 •8963	.8 <sub>0</sub> 86			1.1787		
15	-3.65		5.21			2-1573	.2973		.0275		1.7386	9258	9196			1.1143		
30	-2.88	2.77	9.26			1.9031	•4033	.0454	.0119		1.7155	9649	9620			.9879		
50	-1.81	3.10				1.6880	.4793		.0242		1.6314	.9215	.9159	.0144	.6943	. 8487	1.0235	.6664
70 ~~	06	•				1.5335	,4796		•0393		1.49.5	-8307	.8211		.6932		1-1170	
85 90	.80 .49	4.41 4.38	16.69 18.10			1.4420	.4911 .4991	•2296 •2612	.0547 .0588		1.3898	.7003 -6512	.6862 .6358		.6826		1.1751	
95	.85	4.19				1.3890	4998		•0602		1.3466		.6037		.6790	.5529		
-	-				2	-	•	•	.,,,,,	10002				.0401		1302	1100	•000.
				WC/A-1		P02/	EFF-AD							S	TA-1 ST			SLANT-2
		RPM L		LBM/SEC SOFT	TO1	P01	*	*								DE	GREE	DEGREE
		8117.0			1.1609	1.5676	85.121	86-16							5.0	6.0	86.05	95.02
		-	• •												3.0	0.0	00103	75.02
STA'	TOR																	
STA!		D1A=2	V-1	V=2	VM-1	Vm-2	V <b>0-</b> 1	V <b>0−</b> 2	B~1	<b>B-</b> 2	8* <b>-</b> 1	B <b>'-</b> 2	v1-1	v*-2	V0'-1	V01-2	U <b>-1</b>	U=2
STA!	DIA-1	DIA-2	V-1 FT/SEC	V-2 FT/SEC	VM-1 FT/SEC	<b>VM-2</b> FT/SEC (	V <b>0-</b> 1 FT/SEC	V <b>0−</b> 2 FT/SEC I	B-1 DEGREE (	<b>B-</b> 2 DEGREE (	B'-1 DEGREE	DEGREE	FT/SEC !	TYSEC F	T/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN 5	DIA-1 IN 17.726	IN 16.580	FT/SEC 1175-1	FT/SEC 727.0	FT/SEC 716.1	FT/SEC (	FT/SEC 931.7	FT/SEC ( -26.7	DEGRÉE ( 52.45	DEĞREC ( -2.13	DEGREE -23.00	DEĞREE 43.32	FT/SEC   778.1	FT/SEC F	T/SEC   304+0	FT/SEC -684.8	FT/SEC 627.7	F7/SEC 658.1
% SPAN 5 10	DIA-1 IN 17.720 18.350	IN 16.580 19.110	FT/SEC 1175-1 1185-6	FT/SEC 727.0 753.6	FT/SEC 716.1 771.6	FT/SEC ( 726+2 753-2	FT/SEC 931.7 900.1	FT/SEC ( -26.7 20.5	52.45 49.40	DEĞREE ( -2.13 1.54	DEGREE -23.00 -17.97	DEGREE 43.32 41.07	FT/SEC   778.1 811.3	FT/SEC F 998.3 999.1	7/SEC 304.0 250.2	FT/SEC -684.8 -656.4	FT/SEC 627.7 650.0	FT/SEC 658.1 676.9
% SPAN 5 10 15	DIA-1 IN 17.726 18.350 19.070	IN 16.580 19.110 19.740	FT/SEC 1175-1 1185-6 1174-8	727.0 727.0 753.6 767.7	716.1 771.6 800.8	726.2 753.2 766.4	FT/SEC 931.7 900.1 859.4	FT/SEC   -26.7 20.5 44.7	DEGREE ( 52.45 49.40 47.02	DEĞREE ( -2.13 1.54 3.34	-23.00 -23.00 -17.97 -12.93	DEGREE 43.32 41.07 40.50	FT/SEC / 778.1 811.3 822.2	FT/SEC F 998.3 999.1 1007.9	304.0 250.2 183.9	FT/SEC -684.8 -656.4 -654.5	FT/SEC 627.7 650.0 675.5	F7/SEC 658.1 676.9 699.2
% SPAN 5 10 15 30	DIA-1 IN 17.724 18.350 19.070 21.146	IN 16.580 19.110 19.740 21.600	FT/SEC 1175-1 1185-6 1174-8 1106-9	FT/SEC 727.0 753.6 767.7 771.8	FT/SEC 716-1 771-6 800-8 838-4	FT/SEC (726-2) 753-2 766-4 768-8	FT/SEC 931.7 900.1 859.4 722.2	FT/SEC 1 -26.7 20.5 44.7 67.5	DEGREE ( 52.45 49.40 47.02 40.72	DEĞREE ( -2.13 1.54 3.34 5.02	DEGREE -23.00 -17.97 -12.93 1.80	DEĞREE 43.32 41.07 40.50 42.21	FT/SEC / 778.1 811.3 822.2 840.7	FT/SEC F 998.3 999.1	304.0 250.2 183.9 -26.6	FT/SEC -684.8 -656.4 -654.5 -697.6	FT/SEC 627.7 650.0 675.5 748.6	F7/SEC 658.1 676.9 699.2 765.1
% SPAN 5 10 15	DIA-1 IN 17.724 18.350 19.070 21.146 23.970 26.790	IN 16.580 19.110 19.740 21.600 24.200 26.680	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 078-1	727.0 727.0 753.6 767.7 771.8 759.4 676.8	716.1 771.6 800.8 838.4 810.9	726-2 726-2 753-2 766-4 768-8 758-0 676-6	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9	FT/SEC 1 -26.7 20.5 44.7 67.5 46.4	DEGREE ( 52.45 49.40 47.02	DEĞREE ( -2.13 1.54 3.34	-23.00 -17.97 -12.93 1.80 16.92 32.35	DEGREE 43.32 41.07 40.50 42.21 46.91 54.16	FT/SEC / 778.1 811.3 822.2 840.7 849.3 868.7	7/SEC / 998.3 999.1 1007.9 1038.2 1110.3 1156.6	7/SEC 304.0 250.2 183.9 -26.6 -246.8 -464.0	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9	F7/SEC 658-1 676-9 6699-2 765-1 857-2 952-1
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17-726 18-350 19-070 21-146 23-970 26-790 28-860	IN 16.580 19.110 19.740 21.600 24.200 26.680 28.900	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 078-1 776-1	727.0 727.0 753.6 767.7 771.8 759.4 676.8 578.4	FT/SEC 716.1 771.6 800.8 838.4 810.9 732.1 640.7	726.2 753.2 766.4 768.8 758.0 676.6 578.2	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 437.9	FT/SEC 1 -26.7 20.5 44.7 67.5 46.4 14.9	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36	2-13 1-54 3-34 5-02 3-49 1-25	-23.00 -17.97 -12.93 1.80 16.92 32.35 42.37	DEGREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20	FT/SEC / 778.1 811.3 822.2 840.7 849.3 868.7 867.7	7/SEC / 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7	7/SEC 304 · 0 250 · 2 183 · 9 -26 · 6 -246 · 8 -464 · 0 -584 · 4	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1009.6	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9	F7/SEC 658.1 676.9 699.2 765.1 857.2 952.1 3 1023.7
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	IN 16.580 19.110 19.740 21.600 24.200 26.680 28.900	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 078-1 776-1	727.0 727.0 753.6 767.7 771.8 759.4 676.8 578.4	FT/SEC 716.1 77[.6 800.8 838.4 810.9 732.1 640.7	726-2 726-2 753-2 766-4 768-8 758-0 676-6 578-2	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 437.9	FT/SEC   -26.7 20.5 44.7 67.5 46.4 14.9 14.1	DEGREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36	DEGREE ( -2.13 1.54 3.34 5.02 3.49 1.25 1.40	23.00 -17.97 -12.93 1.80 16.92 32.35 42.37	DEGREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 867-7	77/SEC 6 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7	7/SEC 304.0 250.2 183.9 -26.6 -246.8 -464.0 -584.4 -615.9	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1009.6 -1030.2	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.3	F7/SEC 658.1 676.9 699.2 765.1 857.2 952.1 1023.7 1048.5
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570	IN 16.580 19.110 19.740 21.600 24.200 26.680 28.900	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 078-1 776-1	727.0 727.0 753.6 767.7 771.8 759.4 676.8 578.4	FT/SEC 716.1 77[.6 800.8 838.4 810.9 732.1 640.7	726-2 726-2 753-2 766-4 768-8 758-0 676-6 578-2	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 437.9	FT/SEC   -26.7 20.5 44.7 67.5 46.4 14.9 14.1	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36	2-13 1-54 3-34 5-02 3-49 1-25	23.00 -17.97 -12.93 1.80 16.92 32.35 42.37	DEGREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 867-7	77/SEC 6 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7	7/SEC 304.0 250.2 183.9 -26.6 -246.8 -464.0 -584.4 -615.9	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1009.6 -1030.2	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.3	F7/SEC 658.1 676.9 699.2 765.1 857.2 952.1 3 1023.7
% SPAN 5 10 15 30 50 70 85 90 95	DIA+1 IN 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS	IN 16.580 19.110 19.740 21.600 24.200 26.680 29.600 30.270	FT/SEC 1175.1 1185.6 1174.8 1106.9 1010.2 078.1 776.1 744.5 723.9	FT/SEC 727.6 753.6 747.7 771.8 759.8 576.8 578.4 538.8	FT/SEC 716.1 771.6 800.8 838.4 810.9 732.1 640.7 696.6	726-2 726-2 753-2 766-4 768-8 758-0 676-6 578-2	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 437.9 431.5	FT/SEC 1 -26.7 -20.5 -44.7 67.5 -46.4 -14.9 -14.1 -18.3 -20.7	DEGREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.44	2006REE (-2.13 1.54 3.34 5.02 3.49 1.25 1.40 2.32	-23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44	0EGREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 867-7 864-8 869-6	7/SEC 1 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7	7/SEC 304.0 250.2 183.9 -26.6 -246.8 -464.0 -584.4 -615.9	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1009.6 -1030.2	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.3	F7/SEC 658.1 676.9 699.2 765.1 857.2 952.1 1023.7 1048.5
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE	IN 16.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 INCH	FT/SEC 1175.1 1185.6 1174.8 1106.9 1010.9 776.1 774.5 723.9 DEV DEGREE	FT/SEC 727.6 753.6 747.7 771.8 759.8 576.8 538.8 511.3 TURN DEGREE	FT/SEC 716.1 771.6 800.8 838.4 810.7 640.7 640.6 584.4 CAMBER DEGREE	FT/SEC 726-2 753-2 766-4 768-0 676-6 578-2 538-5 510-9	FT/SEC 931.7 900.1 859.4 722.2 602.2 484.9 437.9 431.5 427.2	FT/SEC 1 -26.7 20.5 44.7 67.5 46.4 14.9 14.1 18.3 20.7 OMEGA-B	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.44 36.17 LOSS-P TOTAL	200 CREE ( -2.13	DEGREE -23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44 47.77	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-B	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   864-8   669-6   EFF-AD   TOTAL	7/SEC / 998.3 999.1 1007.9 1038.2 1116.6 1163.7 1162.7 1169.1 EFF-P	7/SEC 304 · 0 250 · 2 183 · 9 -246 · 8 -464 · 0 -584 · 4 -615 · 9 -643 · 9	FT/SEC -684.8 -656.4 -654.5 -810.9 -937.2 -1009.6 -1030.2 -1051.5 M-2	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.2 1047.4 1071.1	F7/SEC 658-1 676-9 699-2 765-1 857-2 952-1 1 1023-7 1 1048-5 1072-2 M*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.726 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.24	IN 16.580 19.110 21.600 24.200 26.680 28.900 29.600 30.270 INCM DEGREE 6.24	FT/SEC 1175.1 1185.6 1174.8 1106.9 1010.2 078.1 776.1 744.5 723.9 DE V DE GREE 14.36	FT/SEC 727-0 757-0 757-7 771-0 759-4 676-8 578-4 538-9 511-3 TURN DEGREE 54-58	FT/SEC 716.1 771.6 800.8 838.4 810.7 640.7 640.6 584.4 CAMBER DEGREE 62.58	FT/SEC 726-2 753-2 768-8 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY	FT/SEC 931.7 900.1 859.4 722.2 602.2 484.9 437.9 431.5 427.2 D-FAC	FT/SEC I -26.7 20.5 44.7 67.5 46.4 14.9 14.1 20.7 OMEGA-B	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.44 36.17 LOSS-P TOTAL +0332	200 CREC (-2.13 1.54 3.34 5.02 3.49 1.25 1.40 1.96 2.32 LDSS-PROFILE .0225	-23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44 47.77 P02/ P01 S	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-B HOCK .0452	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 864-8 669-6 EFF-AD TOTAL -0000	7/SEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361	7/SEC 304-0 250-2 183-9 -26-6 -246-6 -464-0 -584-4 -615-9 -643-9 M-1	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202	FT/SEC 627.7 650.0 675.5 748.6 849.9 1022.2 1047.4 1071.1	F7/SEC 658-1 676-9 699-2 765-1 857-2 952-1 1023-7 1048-5 1072-2 M*-2 8516
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.72d 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.24	IN 16.580 19.110 19.740 21.600 24.200 26.680 28.900 30.270 INCH DEGREE 6.24	FT/SEC 1175.1 1185.6 1174.8 1106.9 1010.2 078.1 776.1 774.5 DEV DEGREE 14.53	FT/SEC 727.0 753.6 767.7 771.8 759.4 676.8 578.4 531.3 TURN DEGREE 54.58	FT/SEC 716.1 771.6 800.8 830.8 810.9 732.1 640.6 694.4 CAMBER DEGREE 52.58 59.67	FT/SEC 726-2 753-2 766-8 766-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255	FT/SEC 931.7 900.1 852.2 602.3 484.9 437.9 437.9 427.2 D-FAC .5706	FT/SEC   -26.7   20.5   44.7   67.5   46.4   14.9   14.1   18.3   20.7   OMEGA-B   .1399   .1781	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.47 LOSS-P TOTAL .0440	2-13 1.54 3-34 5-02 3-49 1-25 1-40 2-32 LDSS-P PROFILE -0225	-23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44 47.77 P02/ P01 S -9280 -9871	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-P HOCK .0452	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 867-7 867-8 67-8 67-8 67-8 67-8 6	7/SEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7861	7/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -584-4 -615-9 -643-9 M-1 1.0737 1.0808	FT/SEC -684.8 -656.4 -654.5 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6448	FT/SEC 627-7 650-0 675-5 748-6 849-1 948-9 1022-3 1047-4 1071-1 M*-1 -7189	F7/SEC 658-1 679-9 679-9 765-1 857-2 1023-7 1048-5 1072-2 M*-2 8516 8548
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.726 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.24	IN 16.580 19.110 19.740 21.600 24.200 26.680 29.600 30.270 INCM DEGREE 6.24 5.23	FT/SEC 1175.1 1185.8 1174.8 1106.9 1010.2 0741.7 776.1 774.5 723.9 DEV DEGREE 14.38 17.38	FT/SEC 727-16 757-7 757-7 771-8 759-4 678-4 578-8 511-3 TURN DEGREE 54-85 43-66	FT/SEC 716.1 771.6 800.8 838.4 810.9 7340.7 646.6 584.4 CAMBER 62.58 57.15	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255	77.5EC 931.7 900.1 859.4 722.2 602.3 484.9 431.5 427.2 D-FAC .5706 .5426	FT/SEC 1 -26.7 20.5 44.7 67.5 46.4 14.9 14.1 18.3 20.7 OMEGA-B .1399 .1781	DEĞREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.44 36.17 LOSS-P TOTAL +0332	2-13 1.54 3-34 5-02 3-49 1-25 1-40 2-32 LDSS-P PROFILE -0225	DEGREE -23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 5 .9200 .9912	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 0MEGA-P HOCK .0452	FT/SEC / 778-1 811-3 822-2 840-7 849-3 868-7 864-8 669-6 EFF-AD TOTAL -0000	7/SEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7861	7/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -584-4 -615-9 -643-9 M-1 1.0737 1.0808 1.0632	FT/SEC -684.8 -654.5 -654.5 -697.6 -810.9 -1030.2 -1051.5 M-2 .6202 .5585	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.3 1047.4 1071.1 M*-1 .7185 .7485	F7/SEC 658-1 676-9 6 699-2 765-1 857-2 952-1 1 1023-7 1 1048-5 1 1072-2 M*=2 8516 - 8548 - 8645
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.724 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.31 .675 -2.96	IN 18.580 19.110 19.740 21.600 24.200 25.680 29.600 30.270 INCH DEGREE 6.24 5.57 5.23 2.79 2.56	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 878-1 776-1 744-5 723-9 DEV DEGREE 14-38 17-53 18-79 19-04	FT/SEC (727-1777-8 759-8 578-4 538-6 511-3 TURN 0 DEGREE 47-88 43-89 33-89	FT/SEC 716.1 771.6 800.8 836.4 816.9 732.1 646.7 606.6 584.4 (CAMBEE 62.58 59.67 57.15 51.82 44.78	FT/SEC 726-2 768-8 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1.7502 1.7502	752.2 931.7 900.1 859.4 722.2 602.3 484.9 437.9 437.5 427.2 D-FAC .5706 .5215 .4693	FT/SEC 7 -26.7 20.5 44.7 67.5 46.4 14.1 18.3 20.7 OMEGA-B .1399 .1781 .1861 .1597	DEGREE ( 52.45 49.40 47.02 40.72 36.58 33.51 4.36 35.44 36.17 LOSS-P TOTAL .0440 .0454 .0305	2.13 1.54 3.34 5.02 3.49 1.25 1.40 1.96 2.32 LOSS-P PROFILE .0233 .0343 .0305	DEGREE -23.00 -17.93 1.89 16.92 32.35 42.37 45.44 47.77 P02/ 9042 .9280 .9280 .9281 .9281	DEGREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-B HOCK .0456 .0369 .0100	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000   0000   0000	7/SEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF-P STATIC .8361 .7861 .7755 .8381	77/SEC 304.0 250.2 183.9 -26.8 -246.8 -464.9 -615.9 M-1 1.0737 1.0808 1.0632 .9972 .9009	FT/SEC -684.8 -654.5 -654.5 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6448 .5662 .6563	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.2 1047.4 1071.1 M*-1 .7189 .7452 .7624	F7/SEC 658-1 676-9 699-2 8 765-1 8 952-1 1 1023-7 1 1048-5 1 1072-2 M*-2 8516 -8548 -8645 -8961
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ SPAN 5 10 15 30 50 70	DIA-1 IN 17.724 18.350 19.070 21.146 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 1.31 .87 -2.95 -4.04	IN 18.580 19.110 19.740 21.600 24.200 26.680 28.900 29.600 30.270 INCM DEGREE 6.24 5.57 5.23 2.79 2.56 2.09	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 878-1 776-1 744-5 723-9 DEV DEGREE 14-35 18-79 19-04 14-25	FT/SEC 727-0 753-6 757-7 771-8 759-4 676-8 578-8 511-3 TURN 0EGREE 54-85 43-68 33-78 33-89	FT/SEC 716.1 7716.8 800.8 830.9 732.1 640.7 600.6 584.4 CAMBER DEGREE 529.67 57.15 44.78 44.34	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-5 510-9 SOLIDTY 2-1052 1-9427 1-7502 1-5474 1-3863	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 437.9 431.5 427.2 D-FAC .5706 .5215 .4693 .4218	FT/SEC 1 -26.7 -20.5 44.7 67.5 46.4 14.9 14.1 18.3 20.7 OMEGA-B .1399 .1461 .1597 .6461	DEGREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 35.44 36.17 LOSS-P TOTAL .0342 .0478 .0305 .0478	2-13 1-54 3-34 5-02 3-49 1-40 1-95 2-32 LDSS-P PROFILE -0237 -0383 -0419	DEGREE -23.00 -17.97 -12.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 S.9280 .9281 .9042 .9243 .9611	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.09 62.41 64.09 0MEGA-B HOCK .0452 .0369 .0125 .0000	FT/SEC   778-1   811.3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 1998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8381 .8839	77/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -584-4 -615-9 -643-9 M-1 1.0737 1.0808 1.0632 .9972 .9072	FT/SEC -684.8 -654.5 -657.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6548 .5585 .6562 .5573	FT/SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.2 1047.4 1071.1 M*-1 .7185 .7485 .7624 .7694	F7/SEC 658-1 676-9 676-9 765-1 857-2 1023-7 1048-5 1072-2 M*-2 8516 8548 8645 8645 8645 8640 9610
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.724 18.359 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 26.680 28.900 29.600 30.270 INCM DEGREE 6.24 5.23 2.79 2.569 4.16	FT/SEC 1175-1 1185-8 1174-8 1106-9 1010-2 078-1 774-5 723-9 DEV DEGREE 14-38 17-53 18-79 19-04 14-15 14-15	FT/SEC 727-0 757-7 757-7 771-8 759-4 678-4 578-8 511-3 TURN DEGREE 54-58 43-68 35-70 32-96	FT/SEC 716.1 7716.3 800.8 830.4 810.9 732.1 646.6 584.4 (AMBER DEGREE 62.53 59.65 59.65 51.82 44.78 44.78	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1.9427 1.7502 1.5474 1.3863	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 431.5 427.2 D-FAC .5706 .54093 .4249 .4268	FT/SEC 1 -26.7 20.5 44.7 67.5 46.4 14.9 14.1 18.3 20.7 OMEGA-B .1399 .1861 .1861 .1597 .6944 .6605	DEGREE ( 52.45 49.40 47.02 40.72 36.58 33.51 34.36 .17 LOSS-P TOTAL .0332 .0446 .0305 .0313	2-13 1-54 3-34 5-02 3-49 1-20 1-96 2-32 LOSS-P PROFILE -0225 -0303 -0419 -0305	DEGREE -23.00 -17.93 1.80 16.92 32.35 45.44 47.77 P01 S .9280 .9871 .9042 .9243 .9611 .9786	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 0MEGA-P HOCK .0452 .0369 .0125 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8381 .8883 .8444	77/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -584-4 -615-9 -643-9 H-1 1.0737 1.0808 1.0632 .9972 .9099 .7740 .6769	FT/SEC -684.8 -654.9 -657.6 -810.9 -937.2 -1030.2 -1051.5 H-2 .6202 .6408 .6505 .6662 .6573 .8963	FT/SEC 627-7 650-0 675-5 748-8 849-1 948-9 1022-3 1047-4 1071-1 M*-1 -7189 -7485 -7604 -7604 -7590	F7/SEC 658-1 676-9 6 699-2 765-1 857-2 952-1 1 1023-7 1 1048-5 1 1072-2 M*-2 8516 - 8548 - 8645 - 8962 - 9919 - 9983
\$ SPAN 5 10 15 30 50 95 \$ \$PAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.724 18.350 19.070 21.146 23.9790 28.860 29.5790 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 24.200 28.600 29.600 30.270 INCH DEGREE 6.24 5.57 2.79 2.56 2.09	FT/SEC 1175-1 1185-1 1174-8 1174-8 1106-9 1010-2 078-1 776-1 774-5 723-9 DEV DEGREE 14-38 17-59 18-79 19-04 14-25 14-15 16-46 17-68	FT/SEC 727-0 757-7 757-7 771-8 759-4 676-8 578-6 511-3 TURN DEGREE 43-68 43-68 43-68 33-89 33-89 33-89	FT/SEC 716.1 7716.8 800.4 810.9 732.1 640.6 584.4 (AMBER DEGREE 62.58 59.67 57.182 44.78 45.39	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-5 510-9 SOLIDTY 2-1052 2-0255 1-7502 1-7502 1-5474 1-3863 1-2855	FT/SEC 931.7 9001.4 722.2 602.3 484.9 437.9 437.9 427.2 D-FAC .5706 .5436 .4249 .4268 .4972	FT/SEC 7 20-57 20-57 44-7 67-5 46-4 14-9 18-3 20-7 OMEGA-B -1399 -1781 -1597 -6944 -6605 -0959	DEGREE (	2-13 1-24 3-34 5-02 3-49 1-25 1-96 2-32 LOSS-P PROFILE -0225 -037 -0383 -0419 -0305 -0313	DEGREE -23.00 -17.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 S .9280 .9071 .9042 .9243 .9611 .9980 .9764	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-PE HOCK .0416 .0369 .0000 .0000 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	T/SEC 1 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF-P STATIC .8361 .7861 .7869 .7755 .8381 .8839 .8444	77/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -615-9 -643-9 H-1 1.0737 1.0832 1.9972 .9909 .7769 .6479	FT/SEC -684.8 -656.4 -657.6 -697.6 -810.9 -1097.2 -1097.2 -1051.5 M-2 -6202 -6448 -585 -6573 -8561 -4963	FT/SEC 627-7 650-0 675-5 748-6 849-1 948-2 1027-3 1071-1 1071-1 -7189 -7485 -7604 -7596 -7596	F7/SEC 658-1 676-9 699-2 765-1 857-2 952-1 1023-7 1048-5 1072-2 M1-2 8516 8645 8645 9610 9999 9983
\$ SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.724 18.359 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 24.200 28.600 29.600 30.270 INCH DEGREE 6.24 5.57 2.79 2.56 2.09	FT/SEC 1175-1 1185-1 1174-8 1174-8 1106-9 1010-2 078-1 776-1 774-5 723-9 DEV DEGREE 14-38 17-59 18-79 19-04 14-25 14-15 16-46 17-68	FT/SEC 727-0 757-7 757-7 771-8 759-4 676-8 578-6 511-3 TURN DEGREE 43-68 43-68 43-68 33-89 33-89 33-89	FT/SEC 716.1 7716.8 800.4 810.9 732.1 640.6 584.4 (AMBER DEGREE 62.58 59.67 57.182 44.78 45.39	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1.9427 1.7502 1.5474 1.3863	FT/SEC 931.7 9001.4 722.2 602.3 484.9 437.9 437.9 427.2 D-FAC .5706 .5436 .4249 .4268 .4972	FT/SEC 7 20-57 20-57 44-7 67-5 46-4 14-9 18-3 20-7 OMEGA-B -1399 -1781 -1597 -6944 -6605 -0959	DEGREE (	2-13 1-24 3-34 5-02 3-49 1-25 1-96 2-32 LOSS-P PROFILE -0225 -037 -0383 -0419 -0305 -0313	DEGREE -23.00 -17.93 1.80 16.92 32.35 45.44 47.77 P01 S .9280 .9871 .9042 .9243 .9611 .9786	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-B HOCK .0452 .0416 .0369 .0125 .0000 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8383 .8444 .8229 .8102	T/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -615-9 -643-9 H-1 1.0737 1.0808 1.0632 .9972 .909 .6769 .6288	FT/SEC -684.8 -654.9 -657.6 -810.9 -937.2 -1030.2 -1051.5 H-2 .6202 .6448 .6585 .6662 .6573 .4963 .4963	FT/SEC 627-7 650-0 675-5 748-8 849-1 948-9 1022-3 1047-4 1071-1 M*-1 -7189 -7485 -7694 -7596 -7556	F7/SEC 658-1 676-9 6 699-2 765-1 857-2 923-1 1023-7 1048-5 1072-2 M*-2 -8516 -8548 -8645 -9610 -999-3 -9938 -9938 -9938
\$ SPAN 5 10 15 30 50 95 \$ \$PAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.724 18.350 19.070 21.146 23.9790 28.860 29.5790 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 26.680 28.900 29.600 30.270 INCM DEGREE 6.24 5.57 2.59 4.10 5.24 5.77 NCOR-1	FT/SEC 1175-1 1185-8 1174-8 1106-9 1010-2 078-1 774-5 723-9 DEV DEGREE 14-38 17-58 18-79 19-04 14-15 14-15 14-15 14-16 18-64 WCOR-1	FT/SEC 727-6 757-7 771-8 759-4 578-8 578-8 511-3 TURN DEGREE 547-88 543-88 533-89 532-96 533-85 WC/A-1	FT/SEC 716-1 7716-1 7716-8 830-4 810-9 640-7 646-6 584-4 (AMBER DEGREE 62-58 51-82 44-78 45-75 45-96 757-15 702/	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1-9427 1-7502 1-5474 1-3863 1-2855 1-2853	FT/SEC 931.7 900.1 859.4 722.2 602.3 484.9 431.5 427.2 D-FAC .5706 .5426 .4693 .4249	FT/SEC 7 -26.7 -20.5 44.7 67.5 46.4 14.9 18.3 20.7 OMEGA-B .1399 .1781 .1861 .1597 .6944 .6605 .0959 .1082 EFF-P	DEGREE (	2-13 1-24 3-34 5-02 3-49 1-25 1-96 2-32 LOSS-P PROFILE -0225 -037 -0383 -0419 -0305 -0313	DEGREE -23.00 -17.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 S .9280 .9071 .9042 .9243 .9611 .9980 .9764	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-PE HOCK .0416 .0369 .0000 .0000 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8383 .8444 .8229 .8102	T/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -615-9 -643-9 H-1 1.0737 1.0808 1.0632 .9972 .909 .6769 .6288	FT/SEC -684.8 -656.4 -657.6 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6466 .6573 .4665 .4963 .4565 .4963	FT_SEC 627-7 650-0 675-5 748-8 849-1 948-9 1022-3 1047-4 1071-1 M'-1 -7189 -7485 -7604 -7604 -7596 -7556 -7556	F7/SEC 658-1 676-9 669-2 765-1 857-2 952-1 1048-5 1072-2 M*-2 8516 -8548 -8645 -8962 -9919 -9983 -9983 -9983 SLANT-2
\$ SPAN 5 10 15 30 50 95 \$ \$PAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.724 18.350 19.070 21.146 23.9790 28.860 29.5790 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 26.680 28.900 29.600 30.270 INCM DEGREE 6.24 5.57 2.59 4.10 5.24 5.77 NCOR-1	FT/SEC 1175-1 1185-8 1174-8 1106-9 1010-2 078-1 774-5 723-9 DEV DEGREE 14-38 17-58 18-79 19-04 14-15 14-15 14-15 14-16 18-64 WCOR-1	FT/SEC (727-6) 727-76 759-8 578-8 578-8 511-3 TURN 0 EGREE 8 47-85 43-85 33-86 33-86 33-86 33-86 33-86 33-86 33-86 33-86	FT/SEC 716-1 7716-1 7716-8 830-4 810-9 640-7 646-6 584-4 (AMBER DEGREE 62-58 51-82 44-78 45-75 45-96 757-15 702/	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1.9427 1.7502 1.5474 1.3863 1.2865	FT/SEC 931.7 900.4 859.4 722.2 602.3 484.9 431.5 427.2 D-FAC .5706 .5215 .4693 .4668 .4972 .5224	FT_SEC   -26.7   20.5   44.7   67.5   46.4   14.9   14.1   18.3   20.7   OMEGA-B   .1399   .1461   .1597   .6605   .0959   .1082	DEGREE (	2-32 1-34 3-34 5-02 3-49 1-25 1-96 2-32 LOSS-P PROFILE -0225 -0373 -0383 -0419 -0305 -0313	DEGREE -23.00 -17.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 S .9280 .9071 .9042 .9243 .9611 .9980 .9764	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-PE HOCK .0416 .0369 .0000 .0000 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8383 .8444 .8229 .8102	T/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -615-9 -643-9 H-1 1.0737 1.0808 1.0632 .9972 .909 .6769 .6288	FT/SEC -684.8 -656.4 -657.6 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6466 .6573 .4665 .4963 .4565 .4963	FT/SEC 627-7 650-0 675-5 748-8 849-1 948-9 1022-3 1047-4 1071-1 M*-1 -7189 -7485 -7694 -7596 -7556	F7/SEC 658-1 676-9 669-2 765-1 857-2 952-1 1048-5 1072-2 M*-2 8516 -8548 -8645 -8962 -9919 -9983 -9983 -9983 SLANT-2
\$ SPAN 5 10 15 30 50 95 \$ \$PAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.724 18.350 19.070 21.146 23.9790 28.860 29.5790 INCS DEGREE 2.24 1.31 -2.05 -2.96 -4.04	IN 16.580 19.110 19.740 21.600 24.260 26.680 29.600 30.270 INCM DEGREE 6.24 5.57 5.23 2.79 2.56 5.274 NCOR-1 RPM L	FT/SEC 1175-1 1185-6 1174-8 1106-9 1010-2 878-1 776-1 744-5 723-9 DEV DEGREE 14-38 17-53 18-79 14-15 14-15 14-16 14-6 17-6 18-6 WCOR-1	FT/SEC (727.6 727.7 771.8 759.4 676.4 538.8 511.3 TURN E GREE 43.68 35.78 32.26 33.48 35.78 WC/A-IL SM/SEC SQFT	FT/SEC 716.1 7716.1 7716.8 830.9 830.9 732.1 640.6 584.4 (AMBER DEGREE 529.67 57.15 44.39 45.33 45.96 46.75	FT/SEC 726-2 753-2 768-8 758-0 676-6 578-2 538-5 510-9 SOLIDTY 2-1052 2-0255 1-9427 1-7502 1-5474 1-3863 1-2855 1-2853	FT/SEC 931.7 9001.4 859.4 722.2 602.3 487.9 437.9 437.5 427.2 D-FAC .5706 .5215 .4668 .4972 .5224 EFF-AC	FT/SEC 7 20.5 44.7 67.5 46.4 14.1 18.3 20.7 OMEGA-B .1399 .1781 .1861 .1597 .0805 .0805 .0959 .1082 EFF-P	DEGREE (	2-32 1-34 3-34 5-02 3-49 1-25 1-96 2-32 LOSS-P PROFILE -0225 -0373 -0383 -0419 -0305 -0313	DEGREE -23.00 -17.93 1.80 16.92 32.35 42.37 45.44 47.77 P01 S .9280 .9071 .9042 .9243 .9611 .9980 .9764	DEĞREE 43.32 41.07 40.50 42.21 46.91 54.16 60.20 62.41 64.09 OMEGA-PE HOCK .0416 .0369 .0000 .0000 .0000	FT/SEC   778-1   811-3   822-2   840-7   849-3   868-7   7   864-8   669-6   EFF-AD   TOTAL   0000	TYSEC 998.3 999.1 1007.9 1038.2 1110.3 1156.6 1163.7 1162.7 1169.1 EFF~P STATIC .8361 .7698 .7755 .8383 .8444 .8229 .8102	T/SEC 304-0 250-2 183-9 -26-6 -246-8 -464-0 -615-9 -643-9 H-1 1.0737 1.0808 1.0632 .9972 .909 .6769 .6288	FT/SEC -684.8 -656.4 -657.6 -697.6 -810.9 -937.2 -1030.2 -1051.5 M-2 .6202 .6466 .6573 .4665 .4963 .4565 .4963	FT_SEC 627.7 650.0 675.5 748.6 849.1 948.9 1022.2 1047.4 1071.1 M*-1 .7169 .7453 .7624 .7694 .7596 .7536 .7536	F7/SEC 658-1 676-9 669-2 765-1 857-2 952-1 1048-5 1072-2 M*-2 8516 -8548 -8645 -8962 -9919 -9983 -9983 -9983 SLANT-2

#### Blade-Element and Overall Performance with Stator-Hub Slit Suction 110% of Design Speed ROTOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 U-2 \*\*SPAN IN IN FT/SEC 13.120 16.030 638.1 1243.6 638.1 724.1 .00 54.39 36.07 -31.46 789.5 848.9 -464.9 443.0 464.9 568.0 .0 1011.0 14.100 16.790 652.5 1223.4 652.5 752.1 .0 964.8 .00 52.06 37.44 -26.17 821.8 838.5 -499.6 369.8 499.6 595.0 .0 914.8 15.170 17.580 667.6 1137.5 667.6 757.0 .00 50.38 38.83 -21.04 857.2 812.1 -537.6 291.8 537.6 623.0 18.280 19.910 705.7 1078.3 705.7 758.0 .0 766.7 .00 45.29 42.52 -4.55 958.1 762.9 -647.8 61.2 647.8 705.5 .00 41.69 46.92 14.71 1076.2 735.4 -786.3 -186.0 786.3 818.2 .0 632.2 22.190 23.090 734.6 950.1 734.6 709.1 .00 39.55 51.18 33.36 1176.9 752.9 -917.1 -413.1 917.1 930.5 .00 41.09 54.15 45.99 1243.7 765.8-1008.1 -550.4 1008.1 1013.8 737.4 812.5 737.4 626.5 .0 517.4 25.880 26.260 70 28.450 28.610 728.3 705.3 728.3 531.6 .0 463.4 .00 42.57 55.11 49.58 1266.6 768.8-1039.0 -585.0 1039.0 1042.2

.0 457.2

.0 452.4

													EFF-AD C		M-1	M-2	M*-1	H1-2
% SPAN	DEGREC DE	EGREE D	EGREE D	DESREE	DEGREE				TOTAL P	ROFILE	P01	TOTAL	TOTAL SH	ЮСК				
5													.8150					
10													.6883					
15	-3.48	2.82	5.83	59.87	62.90	2.1572	.3150	.1279	•0277	•0277	1.7221	.9249	.9187	.0000	.6221	1.0875	.8007	•7437
30	-2.69	2.97	9.16	47.07	53,26	1.9032	.4225	.0447	•0117	.0117	1.7166	•9656	.9628	.0000	.6608	.9724	•9005	•6679
50	-1.63												.9272					
70	•08	4.20	13.18	17.82	26.91	1.5335	.5045	.1435	•0391	.0324	1.5258	-8409	.8312	.0241	.6897	.7110	1.1141	•6586
85	•90	4.51	16.08	3.16	19.74	1.4420	.5138	.2221	•0 <b>53</b> 5	.0442	1.4273	.7236	.7095	.0372	.6800	.6105	1.1730	.6628
90	•99	4.48	17.29	5.53	18.32	1.4148	.5208	-2512	• 0576	.0478	1-4042	.6813	.6658	.0416	.6767	.5830	1 • 1912	.6628
96	.94	4.23	18.11	3,72	17.46	1.3890	.5210	.2681	•0591	.0486	1.3922	.6548	.6385	.0463	.6740	.5653	1.2085	.6707

NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P RPH LGM/SEC LBM/SEC TO1 PUL × SQFT

29.320 29.410 724.4 676.2 724.4 498.1

30.150 30.130 721.1 657.7 721.1 477.4

8121.0 191.47 43.17 1.1641 1.5864 85.797 86.86

STA-1 STA-2 SLAME-1 SLANT-2 DEGREE DEGREE

.00 43.45 55.98 52.26 1289.0 780.3-1068.4 -617.1 1068.4 1069.4

6.0 86.05 95.02

### STATOR

																V01-2		
% SPAN	111	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGREE	DEGREE	DEGREE	DEGREE	FT/SEC	FT/SEC	FI/SEC	FT/SEC !	FT/SEC	FT/SEC
5																-679.5		
10	18.350	3 19.110	3 1154.7	701.6	744.0	700.9	883.1	29.6	49.89	2.40	-17.38	42.74	779.7	954.3	232.9	-647.6	650.2	677.2
15	19.070	19.74	1144.5	719.2	772.9	717.3	8 643.3	51.3	47,51	4.09	-12.28	42.10	791.6	966.8	168.2	-648.2	675.8	699.5
30	21-140	21.600	1089.8	749.2	815.6	747.5	722.2	50.0	41.49	3.83	1.87	43.73	817.9	1034.8	-26.9	-715.4	749.1	765.4
50	23.970	24.200	1003.7	740.8	797.6	739.4	609 1	45.6	37,35	3.52	16.76	47.67	834.5	1098.4	-240.2	-812.0	849.4	857.5
70	26.79	26.88	9.089	659.3	719.5	5 658.9	507 5	22.3	35.20	1.92	31.54	54.67	846.1	1140.6	-441.7	-930.2	949.3	952.5
85	28.860	) <b>28.9</b> ŋ(	778.7	559.9	628.	3 559.7	459.3	15.8	36.16	1.62	41.86	60.97	844.7	1153.5	-563.4	-1008.3	1022.7	1024.1
90	29.570	29.600	750.7	524.7	597.8	524.4	454.0	18.5	37,23	2.03	44.81	63.02	842.9	1156.4	~593.9	-1030.4	1047.8	1048.9
95	30.240	30.27	733.9	501.9	578.9	501.5	451.2	20.4	37,93	2.33	46.98	64.51	848.6	1165.6	-620.4	-1052.2	1071.6	1072.6
	INCS	INCM	DEV	TURN	CAMBER	SOLIGI	D-FAC	OMEGA-B	LOSS-P	LOSS-F	P02/	OMEGA-B	EFF-AD	EFF-P	M-1	M-2	M*~1	M*-2
% SPAN	DEGREE	DEGREE	DEGREE	DEGREE	DEGREE			_	TOTAL	PROFILE	P01 5	HOCK	TOTAL	STATIC			_	
5	2.79	6.78	3 14.68	54.75	62.5	2.1061	.5997	.1448	•0344	.0245	•9281	.0417	0000	8365	1.0421	.5745	.6869	.8143

6.12 18.38 47.48 59.63 2.0270 .5707 .1791 .0441 .0349 .9100 .0376 .0000 .7922 1.0482 .5979 .7125 .8132 5.76 19.55 43.42 57.12 1.9446 .5461 .1805 .0463 .0377 .9105 .0334 .0000 .7829 1.0344 .6144 .7190 .8260 .4862 .1249 -1.18 3.64 17.84 37.66 51.79 1.7513 .0356 .0356 .9422 .0000 .0000 .8265 .9809 .6449 .7396 .8907 .4422 .0650 •9735 •0000 -2.18 3.34 14.29 33.83 44.78 1.5474 •0210 -0210 .0000 .8933 .8934 .6392 -7457 .9478 4495 .0554 ,5671 .7466 -2.32 3.81 14.82 33.27 44.34 1.3862 .0200 .9817 .0000 • 0200 .0000 .9014 .77<u>2</u>9 .9812 85 .0322 .9779 .0000 -.53 5.98 16.65 34.54 45.34 1.2864 .5021 .0830 •0322 .0000 .8517 .6764 .4782 .7366 .9850 7.04 17.75 35.19 45.97 1.2553 .5319 .0999 .0398 .0398 .9751 .0000 .0000 .8268 .6513 .4465 .7323 .9838 7.56 18.66 35.60 46.76 1.2271 .5551 .1140 ·0464 ·0464 ·9728 ·0000 .0000 .8118 .6358 .7354 .9890 .4259

NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P RPM LBM/SEC LBM/SEC TO1 P01 \* SQFT 8121.0 191.47 43.17 1.1641 1.5251 78.037 79.44

STA-1 STA-2 SLANT-1 SLANT-2 DEGREE DEGREE

11.0 12.0 90.00 90.00

DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 CI-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2 %SPAN IN IN FT/SEC .00 54.87 36.24 -31.56 786.3 525.7 -464.8 432.1 464.8 567.9 .00 52.47 37.61 -25.97 818.4 612.7 -499.5 356.0 499.5 594.8 13.120 16.030 634.2 1222.7 634.2 703.6 14.100 16.790 648.3 1198.9 648.3 730.2 ·U 1000.0 .0 950.B 663.1 1161.4 .0 900.4 .00 50.82 30.01 -20.69 853.6 785.0 -537.5 277.6 537.5 622.8 15.170 17.580 663,1 733,5 700.6 1061.8 .0 769.0 .00 46.39 42.72 -4.91 954.2 736.9 -647.6 63.6 647.6 705.4 18.280 19.910 700.6 731.9 730.5 947.3 739.4 825.6 22.190 23,390 730.5 696.2 .0 642.3 .00 42.67 47.08 14.17 1073.3 720.3 -786.2 -175.7 786.2 818.0 "736.4 #916.9 #388,4 916.9 930.4 25.880 26,260 .0 541.9 51.25 31.92 1175.5 735.4 622. .00 41.03 .00 42.74 54.18 44.72 1243.1 745.9-1007.9 -524.5 1007.9 1013.6 28.450 28.610 727.5 721.0 727.5 529.6 .0 485.1 .0 483.9 29.320 29.410 723.8 692.1 723.8 494.6 .00 44.40 55.13 48.45 1266.1 746.2-1038.8 -558.0 1038.8 1042.0 30.150 30.180 720.6 672.6 720.6 470.9 .0 480.3 100 45.56 55.99 51.34 1288.5 754.2-1068.2 -589.0 1068.2 1069.2 DEV TURN CAMBER SCLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1 W\*-1 INCS INCM .2373 .3282 .0575 .0575 1.6288 .8323 .8201 .00 SPAN DEGREE DEGREE DEGREE DEGREE DEGREE 5.15 67.79 70.83 2.4336 .0000 .5876 1.1280 .7291 .7618 2.14 -3.90 2.77 5.02 63.58 65.86 2.2863 .2831 .1959 .0365 .0385 1.68%6 .8933 .8830 .7465 ·0000 ·6025 1·1012 .7620 .0307 -3.29 3.00 6.18 59.70 62.89 2.1574 ,3427 .1414 .0307 1.7003 .9166 .9099 ·0000 ·6174 1.0598 ·7965 .7163 4481 .0587 -2.49 8.80 47.63 53.25 1.903 .0154 , 9562 .9526 .0000 .6551 .9545 .8946 3.18 .0154 1.7101 .0138 1.6715 .6624 9.63 32.91 39.14 1.6886 .5094 0633 .9428 .0149 .6854 -1.50 3.43 .0152 .9383 .8384 1.0143 .6374 11.75 19.33 26.92 1.5330 .0292 1.3720 .0241 .6880 .7211 1.1115 :12 4:2-,3248 .1300 .0300 .8624 .8533 .6430 .91 4 . 81 .5367 . 2099 9.46 19.74 1.4420 4.53 .0517 .7523 .7385 ·0372 ·6794 .0423 1.4754 .6227 1.1715 .6442 ,0566 .0466 1.4520 .7101 .6946 .0415 .6762 4.49 16.16 6,68 18.33 1.4148 .5459 .2414 .5952 1.1904 .6417 .5489 .0589 4.29 17.19 4.65 17.48 1.3890 .2618 ·0462 .6735 0484 1.4392 .6817 .6650 .5765 1.2080 .6464 NCOR-1 #CGR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TOI POI DEGREE DEGREE SOFT 8119.0 190.47 43.06 1.1680 1.6081 86.457 87.59 6.0 86.05 95.02 STATOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 V*O-2* B-1 B-2 B!+1 B!+2 V!-1 V!-2 VO!-1 VO!-2 U-1 U-2 IN IN FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE DEGREE FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC 5 17.720 18.580 1121.9 639.6 663.3 638.4 904.6 -30.2 53.75 -2.74 -22.66 47.15 718.9 939.1 277.0 -688.4 627.8 658.3 10 18.350 19.110 1125.7 658.9 713.4 658.2 870.7 27.8 50.67 2.41 -17.18 44.61 746.8 924.5 220.6 -649.2 650.1 677.0 4.55 -11.85 43.94 755.7 930.9 155.0 -646.0 675.6 699.4 19.070 19.740 1112.0 672.4 739.1 670.3 830.7 53.3 46.33 21.140 21.600 1067.7 722.9 784.1 721.5 23.970 24.200 997.3 723.7 701.9 722.4 43.5 42.71 3.45 1.77 45.00 786.0 1020.6 -24.6 -721.7 749.0 765.3 724.3 16.40 48.37 816.6 1087.8 -230.4 -813.1 849.2 857.4 618.9 44.2 38.35 3.50 25.790 26.880 891.2 657.9 715.4 657.3 531.5 29.2 36.61 2.53 30,27 54.53 830,1 1133.9 =417.6 =923.1 949.1 952.3 28.860 28.900 792.6 559.8 627.0 559.4 484.7 19.8 37.72 2.03 40.62 60.87 826.5 1149.7 =537.7-1004.1 1022.5 1023.9 2.08 43.63 62.98 822.6 1156.0 -567.3-1029.6 1047.6 1047.7 29.570 29.600 765.0 525.3 595.3 524.9 480.3 19.0 38.91 30.240 30.270 747.6 502.6 574.0 502.3 478.9 18.9 39,84 2.15 45.90 64.51 825.0 1167.2 =592.4=1053.6 1071.4 1072.4 DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P POZ/OMEGA-B EFF-AD EFF-P INCS INCM M\*-1 M1-2 SPANDEGREE DEGREE DEGREE DEGREE DEGREE POI SHOCK TOTAL STATIC .93C4 +0419 +0000 +8404 1.0145 TOTAL PROFILE 7.64 13.76 56.49 62.56 2.1066 .6232 .1447 3.66 .0343 .0244 .6558 .5423 6.95 .035: .7979 1.0163 .5599 18.37 48.26 59.61 2.0280 .5952 .1789 .0441 .9135 .0364 •0000 .6780 .7855 . 0456 .0374 .7907 1.0020 .6838 .7926 2.25 6.62 20.01 43.78 57.10 1.9460 .5714 .1780 .9154 .0322 .0000 .5725 .9525 .0000 .9757 .0000 17.47 4.92 39.26 51.77 1.7524 .5025 .1062 .0303 .0303 .0000 .8531 .9587 .6202 .7078 .8757 0195 14.28 34.84 44.79 1.5476 .4592 .0605 -1.18 4.34 .0195 .9025 .8869 .6226 .7283 • GOUO 15:45 34:08 -.90 3.29 44.33 1.3862 4645 0622 ,4720 .0224 .0224 9792 .0000 .0000 .8907 .7815 .5640 .7300 .0378 .6874 .9742 1.02 7.53 17.08 35.69 45.34 1.2865 .5215 .0973 0378 .9734 .0000 .0000 .8326 .4763 .7192 8.72 17.80 36.83 45.97 1.2553 9.41 18.47 37.69 46.76 1.2271 .1152 2.12 45.97 1.2553 .5534 .0459 9705 .0000 .8079 .6622 .4452 .7128 .9797 .0000 .5783 .1282 .0522 . 22 .9687 .0000 • 0000 .7952 .6458 .4247 .7128 .9863 NCCR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBW/SEC TOI P01 DEGREE DEGREE SOFT 8119.0 190.97 43.06 1.1650 1.5494 79.256 80.64 11.0 12.0 40.00 90.00

## Blade-Element and Overall Performance with Stator-Hub Slit Suction 110% of Design Speed

ROTUR			110 // 01 1	Jesi ga Speed			
5 13.12 10 14.10 15 15.17 30 18.28 50 22.19 70 25.88 85 26.45 90 29.32	IN FT/SEC FT/ 0 16.03C 640.2 12 C 16.790 654.6 1 0 17.580 669.8 1 0 19.910 708.1 1 0 23.090 737.3 5 0 26.260 740.2 5 0 28.610 731.1 1 0 29.410 727.1	253.4 640.2 735. 232.7 654.6 762. 196.3 669.8 764. 194.7 708.1 765.	FT/SEC FT/SEC   1015-3   1015-	.00 54-10 35-9 .00 51-81 37-3 .00 50-28 38-7 .00 45-07 42-4 .00 41-45 46-8 .00 38-86 51-0	DEGREE FT/SEC FT/SEC 9-31-32 791-3 860-4 6-26-11 823-6 849-9 4-21-20 859-0 820-6 3-4-60 960-0 770-5 2 14-63 1078-2 741-2 8 33-57 1178-9 762-3 5 46-06 1245-6 774-6 2 49-73 1268-4 777-9	-499.8 373.7 499.8 59 -537.7 297.1 537.7 62 5-647.9 62.5 647.9 70 2-786.5 -186.4 786.5 81	E6.1178814814
INCS % SPAN DEGREE 5 -5.0 10 -4.1 15 -3.5 30 -2.7 50 -1.7 70 -0.0 85 .8 90 .8 95 .6	DEGREE DEGREE DEG 2 1.89 5.39 6 5 2.51 4.89 6 6 2.73 5.67 8 8 2.86 9.11 4 3 3.18 10.09 3 2 4.10 13.39 6 4 4.2 16.15 9 9 4.38 17.44		5 .2027 .3425 3 .2487 .1959 2 .3111 .1368 3 .4162 .0515 4893 .0815 5 .4952 .1453 5 .5054 .2252	TOTAL PROFILE PO1 .0601 .0801 1.633 .0385 .0385 1.700 .0296 .0296 1.722 .0135 .0135 1.713 .0234 .8381 1.543 .0395 .8382 1.514 .0542 .0889 9.414	9 .8939 .8854 .0000 4 .9199 .9134 .0000 77 .99608 .9576 .0000 5 .9253 .9198 .0140 1 .8365 .8267 .0247	5936 1.1622 .7343 .7 6089 1.1380 .7676 .7 6244 1.0968 .8026 .7 6633 .9791 .9025 .6 6925 .8466 1.0217 .6 6.6926 .7119 1.1163 .6 6.6926 .6109 1.1751 .6 6.6794 .5817 1.1933 .6 6.6767 .5624 1.2106 .6	977 839 524 954 575 676 712 713
	NCOP-1 MCOR-1 WG RPM LBM/SEC LBM SQF 8123.0 191.85 4	M/SEC TO1 PO1	EFF-AD EFF-P			STA-1 STA-2 SLANT-1 SLAN DEGREE DEGR	EE
		2000 2000 1001-	03.210 04.44			310 010 00100 101	02
10 18.35 15 19.07 30 21.14 50 23.97 70 26.79 85 28.86 90 29.57	DIA-2 Y-1 IN FT/SEC FT/ 0 18-580 1157-2 0 19-110 1165-4 0 19-740 1154-8 0 21-600 1097-5 0 24-200 1009-2 0 26-880 882-4 0 28-900 780-3 0 29-600 750-7	V-2 VSEC, FT/SEC, FT/SEC	70-1 V0-2 FY/SEC FY/SEC 918.6 -22.5 5 866.6 27.8 6 723.5 50.8 6 609.0 11.9 7 500.5 17.3 7 500.5 17.3 8 486.2 15.2	47,31 3,93 -12,4 47,31 3,93 -12,4 41,23 3,85 1,7 37,10 3,21 15,6 34,58 1,47 31,5 35,57 1,39 41,9	4 42.23 792.5 966.4 5 41.63 802.2 977.5 6 43.42 825.9 1039.6 4 47.49 841.5 1106.6 0 60.74 854.4 1158.5 2 62.86 852.8 1161.5	V01-1 V01-2 U-1 V-1 PY/SEC PY/SEC PY/SEC PY/SEC SY/SEC SY	2 C 5 5 7 7 5 7 7 7 2 • 5 9 • 1 9 • 9 • 9

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ROTOR
                                                                                      110% of Design Speed
                                 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2
FT/SEC FT/
            DIA-1 DIA+2
In in F
% SPAN IN
                                                                                            .0 1001.8
                                                                                                                  .00 54.58 36.13 -31.35 788.2 834.2 -464.7 434.0 464.7 567.8
           13.120 16.030 636.7 1229.3 636.7 712.4
                                                                                                                                                                            822.0 -499.4 359.7 499.4 594.7
                                                                                            .0 954.4
                                                                                                                   .00 52.26 37.50 -25.95 820.4
                                     650.9 1207.0 650.9 738.7
           14.100 16.790
                                                                                            .0 904.4
                                                                                                                   .00 50.63 38.89 -20.75 855.7
                                                             665.9 741.8
                                                                                                                                                                            794.3 -537.3 281.7 537.3
                                                                                                                                                                                                                              622.7
            15.170 17.580
                                     665.9 1169.9
                                                                                                                                       42.59 -4.51 956.4
                                                                                                                                                                            747.6 -647.5 59.5 647.5 705.2
            18.280 19.910
                                      703.7 1066.3
                                                              703.7 742.9
                                                                                            .0 764.7
                                                                                                                   .00
                                                                                                                           45.80
                                                                                            .0 535.0
                                                                                                                                                                            727.2 -786.0 -182.9 786.0 817.9
                                                             733.3 701.5
                                                                                                                   .00 42.13
                                                                                                                                       46.96 14.62 1075.1
            22.190 23.090
                                     733.3 946.3
                                                                                                                                                                            744.6 -916.7 -401.6 916.7 930.2
                                                                                            .0 528.6
                                                                                                                   .00 40.26 51.16 32.71 11/6.7
            25.880 26.260
                                     737.5 818.0
                                                             737.5 624.2
                                                                                            .0 475.3
                                                                                                                   .00 41.79
                                     729.4 713.6
                                                             729.4 532.2
                                                                                                                                       54.10 45.31 1244.0
                                                                                                                                                                            757.4-1007.8 -538.1 1007.8 1013.4
            28.450 28.610
                                                                                            .0 469.8
                                                                                                                   .00 43.36 55.05 48.96 1267.0
                                                                                                                                                                            758.7-1038.6 -572.0 1038.6 1041.8
            29.320 29.410
                                     725.7
                                                 684.6
                                                             725.7 497.8
                                     722.5 665.5 722.5 476.0
                                                                                            .0 465.2
                                                                                                                  .00 44.34 55.92 51.74 1289.4 769.0-1068.0 -603.9 1068.0 1069.0
            30.150 30.180
                                               TURN CAMBER SCLIDTY D-FAC OMEGA-B LOSS-F LOSS-P PO2/ EFF-P EFF-AD OMEGA-B M-1
                                                                                                                                                                                                                  M*-1
             INCS
                       INCM
                                     DEV
                                                                                      TOTAL PROFILE POI TOTAL TOTAL SHOCK .2289 .3302 .0579 .0579 1.6284 .8307 .8184 .00
SPAN DEGREE DEGREE DEGREE DEGREE DEGREE
                                                                                                                                                                                                                             .7705
                                       5.35 67.47 70.83 2.4335
                                                                                                                                                                             .0000 .5901 1.1355 .7311
             -4.89
                        2.03
             -4.01
                                       5.05 63.44 65.86 2.2863
                                                                                       ·2746 ·1940 ·0391
                                                                                                                            .0381 1.6884
                                                                                                                                                    .8942 .8859
                                                                                                                                                                              .0000 .6051 1.1100
                                                                                                                                                                                                                 .7642 .7559
                          2.66
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                                                                                                                            .0297 1.7058
                                                                                                                                                    .9185 .9120
                                                                                                                                                                                                                  .7988
                                                                                                                                                                                                                              .7257
             -3.41
                           2.88
                                       6.11 59.65
                                                             62.90 2.1573
                                                                                       .3346 .1380
                                                                                                                                                                                        .6203 1.0688
                                                                                                                                                                              .0000
             -2.62
                                       9.19
                                                 47.10
                                                             53.25 1.9036
                                                                                       ·4370 ·0521
                                                                                                             .0136
                                                                                                                            .0136 1.7092
                                                                                                                                                    .9605 .9572
                                                                                                                                                                                        .6584 .9598 .8977
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                          3.04
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                                                                                                                            .0149 1.6589
                                                             39 - 14 1 - 6884
                                                                                                   .0667
                                                                                                               .0191
                                                                                                                                                    .9390 .9344
                                                                                                                                                                              .0147 .6583
                                                                                                                                                                                                     .8382 1.0171
                                                                                                                                                                                                                               .6441
             -1.61
                          3.32
                                     10.08 32.34
                                                                                       .5017
                          4.17
                                     12.54 18.45
                                                             26.92 1.5336
                                                                                       .5146 .1342
                                                                                                               .0368
                                                                                                                            .0301 1.5492
                                                                                                                                                    .8542 .8450
                                                                                                                                                                              .0240 .6902
                                                                                                                                                                                                     .7151 1.1132
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    70
                 . 84
                                                  8.79
                                                             19.74 1.4420
                                                                                                                            .0423 1.4535
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                                                                                                                                                                             .0371 .6813
                                                                                                                                                                                                     .6171 1.1730
                                                                                                                                                                                                                              .6550
                          4.46
                                     15.41
                                                                                       .5240 .2117
                                                                                                               .0516
                          4.42
                                    16.68
                                                  6.39 18.33 1.4148
                                                                                      .5324 .2425
                                                                                                              .0563
                                                                                                                           .0465 1.4302
                                                                                                                                                   .7003 .6850
                                                                                                                                                                             .0413 .6781
                                                                                                                                                                                                     .5896 1.1915
                                                                                                                                                                                                                             .6534
   90
                          4.22 17.59
                                                   4.18 17.48 1.3890
                                                                                       .5335
                                                                                                  .2607
                                                                                                               .0581 .0478 1.4177
                                                                                                                                                   .6732 .6569
                                                                                                                                                                              .0461 .6754
                                                                                                                                                                                                     .5714 1.2090
                                                                                                                                                                                                                              .6602
                        NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/
                                                                                    EFF-AD EFF-P
                                                                                                                                                                                     STA-1 STA-2 SLANT-1 SLANT-2
                       RPM LBM/SEC LBM/SEC TO1
                                                                        P01
                                                                                                                                                                                                             DEGREE DEGREE
                                              SOFT
                       8118-0 191-25 43-15 1-1655 1-5958 86-257 87-28
                                                                                                                                                                                                     6.0 86.05 95.02
                                                                                                                                                                                         5.0
STATOR
                                                                                                V0-2 B-1
                                                                                                                                      B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1
DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VO'-2 U-1 U-2
**SPANIN IN FI/SEC FT/SEC 
           17.720 18.580 1130.7 655.6 676.0 654.5 906.3 -25.8 53.28 -2.29 -22.40 46.25 731.3 946.9 278.6 -683.9 627.7 656.1
                                                                                                                            2.55 -17.12 43.69 760.4 936.0 223.8 -646.6 650.0 676.9 4.36 -11.93 43.11 769.9 946.1 158.9 -646.6 675.5 699.2
           18.350 19.110 1136.4 677.6 726.6 676.8 873.8
                                                                                                    30.3 50.25
           19.070 19.740 1123.9 692.8 752.7
                                                                                                     52.7 47.94
                                                                         690.8
                                                                                      834.4
           21.140 21.600 1075.4 734.9 795.2 733.9
                                                                                     720.3
                                                                                                     38.8 42.04
                                                                                                                             3.02 2.02 44.69 800.3 1032.6 -28.5 -726.4 748.8 765.1
           23.970 24.200 998.5 730.9
                                                                                                                             3.15 16.72 48.21 825.4 1095.7 -237.2 -817.0 849.1 857.2
                                                             789.0 729.8
                                                                                      611.8
                                                                                                     40.2 37.77
                                                                                                                             2.07 30.96 54.68 838.4 1138.1 -430.4 -928.3 948.9 952.1 1.62 41.21 60.89 837.4 1153.7 -551.3-1007.8 1022.3 1023.7
                                     885.1 657.9
                                                             717.4
                                                                                      518.5
                                                                                                             35.86
            26.790 26.880
                                                                          657.4
                                                                                                    23.9
           28.860 28.900
                                     786.4 561.3 629.7 561.0
                                                                                     471.0
                                                                                                    15.9
                                                                                                              36.81
                                    750.6 526.2 598.2 526.0 466.4
741.5 503.2 578.4 503.0 464.0
                                                                                                                             1.71 44.17 63.01 834.2 1159.3 -581.3-1032.8 1047.4 1048.5
1.79 46.38 64.54 838.6 1173.1 -607.2-1056.5 1071.2 1072.2
           29.570 29.600
                                                                                                    15.7 37.96
           30.240 30.270
                                                                                                    15.8 38.74
                                                                                                                                                                                                      M-2
             INCS THEM
                                     DEV
                                             TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-BEFF-AD EFF-P
                                                                                                                                                                                                                  M'-1
                                                                                                                                                                                        M-1
SPAN DEGREE DEGREE DEGREE DEGREE
                                                                                                               TOTAL PROFILE POI SHOCK TOTAL STATIC
               3.18 7.16 14.21 55.57 62.56 2.1064 .6114 .1441 .0342
                                                                                                                            .0245 .9299 .0407 .0000 .8389 1.0247
                                                                                                                                                                                                     .5566 .6688
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                          6.53 18.52
                                                 47.70 59.62 2.0276
                                                                                       .5827 .1760 .0438
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                                                                                                                                                                            .7960 1.0281
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                          6.21 19.82 43.58
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              1.86
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             -1.75
                                                 34.62 44.79 1.5474
                                                                                                                             .0194 .9757
                           3.76
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                                                                                       .4518 .0602
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                                                             44.34 1.3862
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                                     16.68 35.18 45.34 1.2864
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                                    17.43 36.25 45.97 1.2553
              1.16
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                                     18.12 36.94 46.76 1.2271
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                                                                                    EFF-AD EFF-P
                        NCOR-1 WCOR-1 WC/A-1 TO2/ P02/
                                                                                                                                                                                      STA-1 STA-2 SLANT-1 SLANT-2
                        RFM LBM/SEC LBM/SEC TO1
                                                                       PO1
                                                                                                                                                                                                             DEGREE DEGREE
                                              SOFT
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11.0 12.0 90.00 90.00

8118.0 191.35 43.15 1.1655 1.5375 78.970 80.33

	OΒ												lub Sli					
OT	UK						1009	6 of De	esign S	speed								
	DIA-1	DIA-2	V-1	V-2	VM-1	YM-2 FT/SEC 1	V0-1	vo-2	8-1	B-2	B'-1	81-2	V'-1		V0'-1		U=1	U-2
SPAN 5		16.030		1193.4			-1/3EC	959.4	CU.	53.50		-31.93			-423.3	442.2		
10		10:790		1171.1				900.5	•00	50.26		-25.59	767.7		-454.9	358.9		
15			632.3				.0	842.7	.00	48.29		-20.10	799.6		-489.4	275.5		
30			555.9				9.0	689.2	•00	43,30	41.50				-589.7	46.8	589.7	642
50	22.190	23.090	691.2	976.6	691.2	663.2	• Č	549.1	•00	38,75	45,98	15.97	995.3	713.1	-715.9	-195.8	715.9	744
70	25.000	20.200	090 t U				• ()		• 00	34.08	50.16		1087.1		-834.9			
85		20.610					• 0		• 00	34.16	53.04		1148,5		-917.8			
90			<del>687.6</del>				• 0			35,34	53.98		1169,4		-945.9			
95	30.150	30.180	685.0	614.3	685.0	496.2	• 0	362.1	•00	36.12	54.84	50.93	1189.7	787.6	-972.6	-611.5	972.6	973.
	INCS	INCM	DEV			SOLIDTY	D-FAC	OMEGA-B							M-1	M-2	M+-1	M+-2
SPAN	DEGREE	DEGAER.	DEGREE	DEGREE -	DEGREE				TOTAL	PROFILE	<del>- 101</del>	TOTAL	TOTAL S	HOCK				
5	<b>26.</b> 04	. દધ	4.78	60.90		2.4331	.1610		• 0505		1.5514					1.1078		
10	<b>⊕5</b> 117	1149		61.93		2.2455					1.5051					1.0838		
15	g4·57	1.71				2.1562	.2611	. 0825	0180		1.6058		.9448			1.0378		
30	<b>3.7</b> 0			- 45.09		1.9027	-3863	.0629	.0165		1.5541		9465			.9088		
50	2.59	2.33				1.6685	.4498		• 0241		1.4833		.9099			.7822		
70	B1 + 00			10.50		1.4420	4303		•0280		1.3931		• <del>8599</del>				1.0215	
85	-,24	3.40 3.35				1.4420	.4354 .4447	.1722 .2061	•0425 •0486		1.3161		6782				1.0765	
90 95	-:15 -:19	3.15				1.3890	.4476	.2272	0516		1.2765		6383				1.1100	
53					_		-						•		•			
			WCOR-1			P02/	EFF-AD	EFF-P							STA-1 S		LANT-1	
		HPM C	BM/SEC	<del>LDM/SEC</del> Seft	101	P01	76	<b>X</b>								U	EUREE	DEGREE
		7393.5	185.30		1.1287	1.4464	A6.78A	A7.51							5.0	6.0	86.05	95.02
		, 4,000	,	-,0	-,	4,4,04	00,.00	•,,,,,,								-,-	00,00	70,0
STA'	TOR																	
	DIATE	DIA-2	v-1	V-2	VM-1	<b>VM-</b> 5	V0-1	V0-2	8-1	3-2	B'-1	B1-2	V 1-1		V0*=1		U-1	U-2
SPAN	₹₩ <u>-</u>	N	FT/SEC P			FT/SEC F			EUREE D			EUREE F	TYSEC !	FT/SEC F	TISEC F	T/SEC I	T/SEC 1	FT/SEC
5	17.720			743.7	699.0		868.3	-42.1	51.10		-22,99	40.84	759.4	981.2		-641.5	571.7	
10			1121.2	762.4	758.3		825.8	10.3	47.44		-17.14	38,50	793.7	973.9		-606.2	592.0	
								74 4		2 7 2								
15 30	19.070 21.140			770•4 75 <b>9</b> •1	781.1 794.8	769.5 758.9	777.6 649.1	36.3 18.6	44.86 39.21	1.40	-11.74 2.35	37,97 41.78	798,4	976.1 1018.0		-600.5 -678.3	615.2 682.0	

STA	TOR																	
	DIATE		V-1	V-2	- AM-1	VM-5	V0-1	V0-2	8-1	3-2	B'-1	B1-2	V 1-1		V01-1		U-1	U-2
SPAN	TH.																FT/SEC 1	
5		18.580		743.7			868.3	-42.1			-22,99			981.2		-641.5		
10		19:110					825.8		47.44		-17.14					~606.2		
15		19.740					777.6	36.3			-11.74	37,97				<b>-</b> 600.5		
30		21.600					649.1	18.6	39.21	1.40	2.35	41.78		1018.0		-678.3		696.8
50		24.200		727.0			529.0		34.43		17.55				-244.2			
70		20 + HOU									31.75				-446.8			
ز۴		58.400									40.49		860,3	1123.5	-558.4	-944.8	931.0	
90		29.000					365.7	-4.9	30.38	47	43.30	59.40			-588.2			954.9
95	30.240	30.270	703.7	536.8	603.9	536.8	361.3	2.0	30.89	.21	45.49	61.15	861.4	1112.7	-614.3	-974.6	975.6	976.5
		_	_									_						
	INCS	INCM	DEV			SOLIDTY	D-FAC	omega-b							<b>~-1</b>	M-2	M*-1	M+-2
	DEOPEE									PROFILE	101 51		TOTAL					
5	•71					2.1055					9347				1.0216			
10	-175					2.0262					9179				1.0229			
15	1.22					1.9436			•0405		• 9246	• 0170	• 2020	.7781	1.0001	.6710	.7278	.5502
30	3,57			37.81		1.7501	.4338		.0321	.6321	•9517	• 0000	•0000	.8201	.9261	.6640	.7242	.89114
50	<b>25.16</b>			32.77		1.5472			•0271	.0271	•9689	.1000	•0000	.8397			,7296	.9209
70	<del></del>					1.3063			-0160	.0160	• 9863		• 0000	,8972	.7427	15951	.7598	9701
85	-7.07					1.2865			.0202	.0202	• 9866	• 1000	•0000	.8725			7 .7625	,9811
90	<b>#6.46</b>	.15				1.2553	.4191	0768	.0306	•0306	•9815	• 0000	•0000	.8249	,6385	.4940	.7578	.9703
95	<b>-6.3</b> 0	.46	16.54	30.68	46.76	1.2271	.4450	.0997	• 0406	• 0406	• 9772	• 6000	.0000	.7908	.6198	.4655	7589	.9648
																<b></b>		
			WCOR-1			P02/	EFT-AD								STA-1 S		LANT-1	
		-Martin	BM/SEC		101	101	75	*							**************************************	D	EUREE	DEGREE
		7107 6		SOFT	4 1267	1 7000	76 004	40.36										
		1,033.00	10 3 8 2 ()	74070	1.160/	1,3992	70,294	, 44 3m							11.0	12.0	90.00	90.00

## Blade-Element and Overall Performance without Stator-Hub Slit Suction 100% of Design Speed

ROT	OR						100	% of D	esign	Speed								
% SPAN	DIA-1 IN		\-1 FT/SEC	V-2 FT/SEC I	VM-1 FT/SEC I	VM-2 FT/SEC F	VO-1 FT/SEC		B-1 DEGREE (	B-2 DEGREE D	B+-1 EGREE			V'-2 FT/SEC			U-1 FT/SEC	U=2 FT/SEC
5	13,120	15.030	605.2	1176.9	605,2			947.8	.00	53.64	34,96	-31.70	738.5	820.0	-423,2	430.8	423.2	
10		16.790		1155.¢	618.5		.0	895,3	•00	50.82		-25.65	767,7		-454.8			541.5
15		17.560		1114,2			• 0	836.5	.00	48.65		-20.06			-489,3			
30		19,910		954,9		721.0	.0	685.2	•00	43,50	41.48				-589.6			
50		23.090		875.0			• 0	554.5	•00	39.30	45.94		995.7			-190.3		
70		26.260					.0	434.8	00	34,78	50.11		1087.8			-412.1		
85		28.610		670.4					•00	35,14	52.99		1149.1			-537.1		
90		29,410			688.8			378,7	•00	36,53	53.93			766.5				
95	30.150	30.180	686.2	614.2	686.2	487.6	•0	373,6	•00	37.46	54.79	50.89	1190.2	773.1	-972.4	-599.6	972.4	973.4
	INCS	INCM	DEV			SULIDTY	D-FAC	OMEGA-B						OMEGA-B	M-1	M-2	M+-1	M1-2
	DEGREE	DEGREE	DEGREE I				·			PROFILE	PO1		TOTAL S					
5	-6.05	. 67	5.01	66,65							1.5478					1.0900		
10	-5.18	1.48				2,2656			.0252		1,5989		.9220			1,0660		
15	-4.58	1.71	6.81			2.1564			.0169		1.6025		.9476			1.0222		
30	-3.72	1.93				1,9030			.0122		1,5594							
50	-2.64	2,29		30.26		1.6686	.4596	.0674	0192		1.5002		.9285					
70	1.06	3.09		16.79	26.92	1.53.37	.4405	<u></u>	-0234		1-4162		.6856				1,0222	
85	29	3,34		8.58		1.4420	,4483	.1608	0398		1.3385		.7604				1.0774	
90	20	3,29		5,65		1,4148	,4594	,1977	.0467		1.3119						1.0945	
95	25	3.10	16.73	3,90	17.48	1.3890	•4635	.2207	.0501	•0457	1.2959	.6707	•6584	.0191	.6387	• 5353	1.1107	6737
		NCOR-1	WCCR-1	WC/A-1	T02/	PQ2/	EFF-AD	EFF-P						:	STA-1 S	TA-2 5	LANT-1	SLANT-2
			MM/SEC I			P01	*	. %										DEGREE
				SOFT														
		7391	185.50	41.83	1,1299	1,4622	88,304	88.97							5.0	6.0	86,05	95.02
C T A	TO D																	
STA	TOR																	
STA		DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V0-2	B <b>-</b> 1	B <b>-</b> 2	B*=1	8*-2	V*-1	V*-2	V0 * - 1	V0+-2	U <b>-</b> 1	U <b>-</b> 2
STA % SPAN	DIA-1	DIA-2	V-1 FT/SEC !	V-2 FT/SEC I	VM-1 FT/SEC (	VM-2 FT/SEC F	V0-1 FT/SEC	V0-2 FT/SEC (	B-1 DEGREE (	B-2 Degree D			V'-1 FT/SEC	V'-2 FT/SEC !	VO'-1 FT/SEC	V01-2 FT/SEC		
	DIA-1	IN	FT/SEC 1	FT/SEC	FT/SEC	FT/SEC F	FT/SEC	FT/SEC (	DEGREE (	SEGREE D	EGREE	DEGREE	FT/SEC	FT/SEC !	FT/SEC	V0'-2 FT/SEC -641.5	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17,720	18.580	V-1 FT/SEC 1 1096.1 1102.0	713.2	FT/SEC	711.6	857.7	FT/SEC (	DEGREE (	SEGREE D	EGREE	DEGREE 42.03	740.1 770.2	958.3 947.5	286,2 286,2 229,1	FT/SEC -641.5 -600.3	571.5 591.6	599.3 616.4
% SPAN 5	DIA-1 IN 17,720 18,350	18,580 19,110	FT/SEC 1	713.2 733.5	682.5 735,2	711.6 732.7	857.7 820.9 772.3	FT/SEC ( -42.2 16.0 54.2	DEGREE (	-3.42 1,23	EGREE -22.74	DEGREE 42.03 39.32	740.1 770.2 778.3	FT/SEC 958.3 947.5 943.1	286.2 286.2 229.1 157.3	FT/SEC -641.5 -600.3 -582.5	571.5 591.6 615.1	FT/SEC 599.3 616.4 636.7
% <u>SPAN</u> 5 10	DIA-1 IN 17.720 18.350 19.070	18.580 19.110 19.740	FT/SEC   1096.1 1102.0	713.2 733.5 733.5 743.8	682.5 735.2 761.6	FT/SEC F 711.6 732.7 741.8	857.7 857.7 820.9 772.3 645.5	FT/SEC ( -42.2 16.0 54.2 15,6	51.49 45.39 39.45	DEGREE D -3.42 1.23 4.18 1.19	EGREE -22.74 -17.31 -11.67 2.63	DEGREE 42.03 39.32 38.14 42.32	740.1 740.1 770.2 778.3 786.3	FT/SEC   958.3 947.5 943.1 1011.4	7/SEC 286,2 229,1 157,3 -36,3	FT/SEC -641.5 -600.3 -582.5 -681.1	571.5 591.6 615.1 681.6	599.3 616.4 636.7 696.7
% SPAN 5 10 15	DIA-1 17.720 18.350 19.070 21.140	18.580 19.110 19.740	FT/SEC 1 1096.1 1102.0 1064.9 1015.7	713.2 713.5 733.5 743.0 747.7	682.5 682.5 735.2 761.6 783.8	FT/SEC F 711.6 732.7 741.8 747.5	857.7 857.7 820.9 772.3 645.5 534.3	FT/SEC ( -42.2 16.0 54.2 15,6 22.7	51,49 40,15 45,39 39,45 34,91	DEGREE D -3.42 1.23 4.18 1.19 1.81	EGREE -22.74 -17.31 -11.67 2.63 17.32	DEGREE 42.03 39.32 38.14 42.32 46.50	740.1 740.1 770.2 778.3 786.3 802.9	FT/SEC   958.3 947.5 943.1 1011.4 1044.7	FT/SEC 286.2 229.1 157.3 -36.3 -238.9	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8	571.5 591.6 615.1 681.6 773.1	599.3 616.4 636.7 696.7 780.5
% SPAN 5 10 15 30	DIA-1 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2	713.2 713.5 733.5 743.0 747.7	682.5 682.5 735.2 761.6 783.8	711.6 711.6 732.7 741.8 747.5 718.8	857.7 857.7 820.9 772.3 645.5 534.3 426.6	FT/SEC ( -42.2 16.0 54.2 15,6 22.7 -3.8	51.49 45.15 45.39 39.45 34.91 30.72	DEGREE D -3.42 1.23 4.18 1.19 1.81 -,34	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44	740.1 740.2 770.2 778.3 786.3 802.9 841.7	FT/SEC   958.3 947.5 943.1 1011.4 1044.7	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5	FT/SEC -641.5 -600.3 -582.5 -681.3 -757.8 -870.8	571.5 591.6 615.1 681.6 773.1	FT/SEC 599.3 616.4 636.7 696.7 780.5 867.0
% <u>SPAN</u> 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19,110 19.740 21.600 24.200	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9	713.2 713.5 733.5 743.6 747.7 719.2 669.2 592.7	FT/SEC 682.5 735.2 761.6 783.8 765.0 717.4 646.3	FT/SEC   711.6 711.6 732.7 741.6 747.5 718.8 669.2 592.7	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3	FT/SEC ( -42.2 16.0 54.2 15,6 22.7 -3.8	51.49 45.15 45.39 39.45 34.91 30.72	DEGREE D -3.42 1.23 4.18 1.19 1.81 34	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0	FT/SEC   958.3 947.5 943.1 1011.4 1044.7 1098.7	7/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1	FT/SEC 599.3 616.4 636.7 696.7 780.5 867.0
% <u>SPAN</u> 5 10 15 30 50 70	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,860 29,570	18.580 19.110 19.740 21.600 24.200 26.880 29.600	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7	713.2 713.5 743.6 747.7 719.2 669.2 592.7 552.6	FT/SEC 682.5 735.2 761.6 783.8 765.0 717.4 646.3 614.7	FT/SEC   711.6 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8	857.7 857.7 820.9 772.3 645.5 534.3 426.6 382.3 376.3	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6	51.49 46.15 45.39 39.45 34.91 30.72 30.61 31,49	1.23 4.18 1.19 1.81 34	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7	FT/SEC   958.3 947.5 943.1 1011.4 1044.7 1098.7	7/SEC 286,2 229,1 157,3 -36,3 -238,9 -437,5 -548,5 -577,5	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,860 29,570	10.580 19.110 19.740 21.600 24.200 26.880 29.900	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7	713.2 713.5 733.5 743.6 747.7 719.2 669.2 592.7	FT/SEC 682.5 735.2 761.6 783.8 765.0 717.4 646.3 614.7	FT/SEC   711.6 711.6 732.7 741.6 747.5 718.8 669.2 592.7	857.7 857.7 820.9 772.3 645.5 534.3 426.6 382.3 376.3	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6	51.49 45.15 45.39 39.45 34.91 30.72	DEGREE D -3.42 1.23 4.18 1.19 1.81 34	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7	FT/SEC   958.3 947.5 943.1 1011.4 1044.7 1098.7	7/SEC 286,2 229,1 157,3 -36,3 -238,9 -437,5 -548,5 -577,5	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,860 29,575 30,240	18.580 19.110 19.740 21.600 26.820 25.900 29.600 30.270	FT/SEC 1096.1 1102.0 1054.9 1015.7 933.2 834.7 750.9 720.7 700.5	713.2 713.2 733.5 743.4 747.7 719.2 669.2 592.7 552.6 523.9	FT/SEC 682.5 735.2 761.6 783.8 765.0 717.4 646.3 614.7 593.1	FT/SEC   711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6	DEGREE 51.49 45.15 45.39 39.45 34.72 30.61 31.49 32.14	DEGREE D -3.42 1.23 4.18 1.19 1.81 34 05	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33 43.22 45.45	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7	FT/SEC   958.3   947.5   943.1   1011.4   1098.7   1008.7   1108.7   1107.0   1107.0	7/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.5 -602.7	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -975.2	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1 930.6 930.6	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 976.3
% SPAN 5 10 15 30 50 70 85 90 96	DIA-1 17,720 18,350 19,070 21,140 23,970 26,790 28,860 29,574 30,240 INC5	18.580 19,110 19.740 21.600 24.200 26.880 29.600 30.270 INCM	FT/SEC 1096.1 102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5	713.2 713.2 733.5 743.3 747.7 719.2 669.2 592.7 552.6 523.9	FT/SEC 682.5 735.2 761.6 783.8 765.0 717.4 646.3 614.7 593.1	FT/SEC   711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6	DEGREE 51.49 45.15 45.39 39.45 34.72 30.61 31.49 32.14 LOSS-P	DEGREE D -3.42 1.23 4.18 1.19 1.81 34 43 05 .12	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33 43.22 45.45	DEGREE 42.03 39.32 42.32 48.50 52.44 57.68 59.94 61.75 CMEGA-B	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 845.6 EFF-AD	FT/SEC   958.3   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   EFF-P	7/SEC 286,2 229,1 157,3 -36,3 -238,9 -437,5 -548,5 -577,5	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.243 INCS DEGREE	10.580 19.110 19.740 21.600 26.880 29.900 29.600 30.270 INCM DEGREE	FT/SEC 1096.1 1102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5	713.2 733.5 743.4 747.7 719.2 669.2 592.7 552.6 523.9	FT/SEC 682.5 735.2 761.6 783.8 765.8 717.4 646.3 614.7 593.1 CAMBLR	FT/SEC ( 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6	FT/SEC ( -42.2 16.0 54.2 15,6 22.7 -3.8 -4.6 5 1.1	DEGREE 51.49 45.15 45.39 39.45 30.72 30.61 31.49 32.14 LOSS-P	DEGREE D -3.42 1,23 4.18 1.19 1.81 34 05 .12 LOSS-P PROFILE	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33 43.22 45.45 P02/ P01 S	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94 61.75 CMEGA-B	FT/SEC 740.1 770.2 778.3 786.9 841.7 848.0 843.7 845.6 EFF-AO TOTAL	958.3 947.5 947.5 943.1 1011.4 1044.7 1098.7 1108.7 1104.0 EFF-P STATIC	FT/SEC 286.2 229.1 157.3 -38.9 -437.5 -548.5 -577.5 -602.7 M-1	FT/SEC -641.5 -600.3 -582.5 -681.8 -757.8 -870.8 -936.7 -955.2	FT/SEC 571.5 591.6 615.1 684.1 930.6 953.7 975.3 M*-1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.060 29.575 30.240 INCS DEGREE 1.23	10.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 5.21	FT/SEC 1 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 72C.7 700.5 DEV DEGREE 13.09	713.2 713.2 733.5 747.7 719.2 669.2 592.7 552.6 523.9 TURN CEGREE 54.91	FT/SEC 682.5 735.2 763.6 765.0 717.4 646.3 593.1 CAMBLR DEGREE 62.57	FT/SEC   711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIDTY	### ##################################	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 5 1.1	51.49 40.15 45.39 39.45 30.72 30.61 31.49 32.14 LOSS-P TOTAL .0329	DEGREE D -3.42 1.23 4.19 1.813443434343434305 .12 LOSS-P PROFILE .0329	EGREE -22.74 -17.31 -11.67 2.63 17.32 40.33 43.22 45.45 P02/ P01 5	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94 61.75 CMEGA-B	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7 845.6 EFF-AO TOTAL	958.3 947.5 947.5 943.1 1011.4 1044.7 1108.7 1108.7 1107.0 EFF-P STATIC .8232	FT/SEC 286.2 229.1 157.3 -36.9 -437.5 -548.5 -577.5 -602.7 M-1	FT/SEC -641.5 -600.3 -582.5 -681.8 -757.8 -870.8 -936.7 -955.2 -975.2 M-2	FT/SEC 571.5 591.6 615.1 681.6 773.1 864.1 930.6 953.7 975.3 M*-1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M*-2
% SPAN 5 10 15 30 50 70 85 90 96	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.573 30.240 INCS DEGREE 1.23 00	18.580 19.110 21.600 24.200 26.8E0 29.600 29.600 30.270 INCM DEGREE 5.21 4.25	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21	713.2 713.2 733.5 747.7 719.2 669.2 592.7 552.6 TURN DEGREE 54.91 46.92	FT/SEC 682.5 735.2 763.6 765.0 717.4 646.3 593.1 CAMBLR DEGREE 62.57	FT/SEC F 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIUTY 2.1060 2.0269	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 376.3 D-FAC .5400 .5107	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 1 OMEGA-B	51.49 40.15 45.39 39.45 30.72 30.61 31.49 32.14 LOSS-P TOTAL .0329 ,0413	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329	EGREE -22.74 -17.31 -11.67 2.63 17.32 40.33 43.22 45.45 PO2/ 9346 -9204	DEGREE  42.03 39.32 38.14 42.32 48.50 52.44 57.68 57.68 61.75 CMEGA-B HQCK 0000	740.1 740.1 770.2 778.3 786.3 802.9 841.7 843.6 843.6 EFF-AD TOTAL .0000	958.3 947.5 943.1 1011.4 1044.7 1098.7 1108.7 1104.0 1107.0 EFF-P STATIC .8232 .7820	FY/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.7 M-1	FT/SEC -641.5 -602.5 -582.5 -681.1 -757.6 -870.8 -936.7 -955.2 M-2	FT/SEC 571.5 591.8 615.1 681.8 773.1 864.1 930.8 953.7 975.3 M1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M*-2
% SPAN 5 10 15 30 50 70 85 90 96 % SPAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 1.230078	IN 13,580 19,110 19,740 21,600 26,820 29,600 30,270 INCM DEGREE 5,21 4,57	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 750.9 720.7 700.5 DEV DEGREE 13.09 17.211	713.2 713.2 733.3 747.7 719.2 669.2 592.7 552.6 523.9 TURN 0EGRSE 54.91 46.92 41.21	FT/SEC 682.5 735.6 783.8 765.0 14.7 593.1 CAMBLR DEGREE 62.57 59.64	FT/SEC   711.6 711.6 732.7 741.3 747.5 718.8 669.2 592.7 552.8 523.9 SOLIUTY 2.1060 2.0269 1.9444	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 0-FAC .5400 .5107 .4811	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 5 1.1 OMEGA-B	51.49 45.15 45.39 39.45 30.72 30.61 31.49 32.14 LOSS-P TOTAL .0329	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33 45.45 P02/ P01 5 .9346 .9275	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94 61.75 CMEGA-B HOCK .0000	FT/SEC 740.1 770.3 778.3 786.3 802.9 841.7 848.0 843.7 845.6 EFF-AD TOTAL .0000	FT/SEC   958.3   947.5   947.5   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   1107.0   EFF-P   STATIC   .8232   .7820   .7975	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -547.5 -602.7 M-1 1.0012 1.0033 .9832	FT/SEC -641.5 -600.5 -582.5 -681.3 -757.8 -870.8 -936.7 -955.2 -975.2 M-2	FT/SEC 571.5 591.5 691.6 773.1 864.1 950.6 953.7 975.3 M·-1 .6833 .7094	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M'-2 .8277 .8279 .8195
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.240 INCS DEGREE 1.230078 -3.28	IN 13,580 19,110 19,740 21,600 24,200 26,880 29,600 30,270 INCM DEGREE 5,21 4,25 3,57 1,55	FT/SEC 1096.1 1102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 19.63	TYSEC 713.2 733.3 747.7 719.2 699.2 592.7 552.6 523.9 TURN DEGREE 54.91 46.21 38.25	FT/SEC 682.5 735.6 783.6 765.0 717.4 646.7 593.1 CAMBLR 62.57 57.64 57.12 51.81	FT/SEC F 711.6 732.7 741.8 747.5 718.8 669.2 592.7 552.8 523.9 SOLIUTY 2.1060 2.0269 1.9444 1.7507	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4811	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 5 1.1 OMEGA-B .1387 .1673 .1558 .0861	51.49 45.15 45.39 39.45 30.72 30.61 30.73 30.61 30.74  LOSS-P TOTAL .0329 .0413 .03399 .7246	DEGREE D -3.42 1.23 4.18 1.19 1.813405 .12 LOSS-P PROFILE .0329 .0358 .0399	EGREE -22.74 -17.31 -11.67 2.63 17.32 31.35 40.33 43.22 45.45 P02/ P01 5 .9204 .9637	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000	FT/SEC 74C.1 77C.2 778.3 786.3 802.9 841.7 848.0 843.7 845.6 EFF-AD TOTAL .0000 .0000	FT/SEC 958.3 947.5 943.1 1011.4 1044.7 1098.7 1108.7 1104.0 1107.0 EFF-P STATIC .8232 .7820 .7820 .7825 .8632	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.5 -602.7 M-1 1.0012 1.0032 .9164	FT/SEC -641.5 -600.3 -582.3 -681.1 -757.8 -975.2 -975.2 M-2 .6161 .6363	FT/SEC 571.5 571.5 591.6 681.6 681.6 773.1 930.6 953.7 975.3 M*-1 .6633 .7094 .7136	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M'-2 .8277 .8209 .8195 .8377
\$ SPAN 5 10 15 30 50 70 85 90 95 5 10 16 16 30 50 50 50 50 50 50	DIA-1  17.720 18.350 19.070 21.140 23.970 26.790 29.575 30.240  INCS DEGREE 1.2300788 -4.63	IN 13,580 19,1740 21,600 24,200 26,800 29,600 30,270 INCM DEGREE 5,21 4,25 3,57 1,57	FT/SEC 1 1096.1 1102.0 1084.9 1015.7 933.2 834.7 700.5 DEV DEGREE 13.09 17.21 19.63 15.21 12.60	713.2 713.2 733.5 747.7 719.2 699.2 592.7 552.6 523.9 TURN 0EGRSE 46.92 41.21 38.25	FT/SEC 682.52 763.63 763.04 765.04 646.37 593.1 CAMBUR 62.57 57.12 54.81	FT/SEC F 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIUTY 2.1060 2.0269 1.9444 1.7507 1.5471	857.7 820.7 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4388 .4053	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 5 i.1 OMEGA-B .1387 .1673 .0861 .0629	51.49 46.15 39.45 39.45 30.72 30.61 31.49 32.14 LOSS-P TOTAL .0329 .0413 .039 .0246	DEGREE D -3.42 1.23 4.19 1.81340512 LOSS-P PROFILE 0329 .0358 .0399 .0246	EGREE -22.74 -17.31 -11.63 17.32 17.32 43.22 45.45 PO2/ 92.75 .9346 .9204 .9275 .9768	DEGREE  42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0221	FT/SEC 74C.1 770.2 778.3 786.3 802.9 841.7 848.0 643.7 845.6 EFF-AD 10TAL .0000 .0000	958.3 947.5 943.1 1011.4 1044.7 1098.7 1108.7 1104.0 1107.0 EFF-P STATIC .8232 .7820 .7975 .8632 .8840	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.5 -602.7 M-1 1.0012 1.0033 .9164 .8353	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.6 -936.7 -955.2 -975.2 M-2 -6161.6355 -6463.6289	FT/SEC 571.5 591.5 681.6 6773.1 864.1 930.8 953.7 975.3 M*-1	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.5 M*-2 .8277 .8209 .8195 .8195 .8195
\$ SPAN 5 10 15 30 50 70 85 90 95 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.2378 -3.28 -4.63 -6.85	IN 13,580 19,740 21,600 24,200 26,800 29,600 30,270 INCM DEGREE 5,21 4,25 3,57 1,55 4,25 3,57	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 15.21 19.63 15.21 12.60	FYSEC 713.2 713.2 743.3 747.7 719.2 699.2 592.7 552.6 525.9 TURN DEGREE 44.91 44.92 41.21 38.25 33.10	FT/SEC 682.5 735.6 783.8 765.0 746.3 614.7 593.1 CAMBLE 62.57 57.12 51.81 44.33	FT/SEC (711.6 732.7 741.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIDTY 2.1060 2.0269 1.9444 1.7507 1.5471 1.3653	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .4053 .4053 .3837	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 5 1.1 OMEGA-B .1987 .1558 .0861 .0661	DEGREE   51.49   45.39   39.45   30.61   30.61   31.49   32.14   LOSS-P   TOTAL   .0329   .0243   .0243   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0244   .0243   .0243   .0243   .0244   .0243   .0243   .0243   .0244   .0243   .0244   .024	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358 .0399 .0246 .0203	EGREE -22.74 -17.67 -11.67 -2.63 17.32 40.33 40.33 45.45 PO2 5 .924 .9275 .9637 .97676	DEGREE 42.03 39.32 38.14 42.32 46.50 52.44 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0221	FT/SEC 74C.1 770.2 778.3 786.3 802.9 841.7 844.0 843.7 845.6 EFF-AO TOTAL .0000 .0000 .0000	FT/SEC   958.3   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   1107.0   EFF-P   STATIC   .8232   .7975   .8632   .8840   .9137	FT/SEC 286.2 229.1 157.3 -36.3 -238.5 -548.5 -577.5 -602.7 M-1 1.0012 1.0033 .9832 .9164 .8353 .7425	FT/SEC -641.5 -600.3 -582.5 -681.3 -757.8 -936.7 -955.2 -975.2 M-2 -6161.6555 .6465 .6553 .6268 .5866	FT/SEC 571.5 591.6 615.1 681.6 773.1 930.6 953.7 975.3 M*-1 .6833 .7066 .7094 .7136 .7223 .7232	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M*-2 .8277 .8209 .8195 .8195 .9136 .9621
\$ SPAN 5 10 15 30 50 95 \$ SPAN 5 10 15 30 95 95 \$ SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -6.12	IN 19,580 19,740 21,600 24,200 26,800 29,900 30,270 INCM DEGREE 5,21 4,25 3,57 1,55 84 -71	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 12.60 12.56	TYSEC 713.2 733.3 747.7 719.2 699.2 592.7 552.6 525.9 TURN DEGREE 54.91 46.92 41.21 38.25 33.10 31.06	FT/SEC 682.5 735.6 783.8 765.0 646.3 614.7 593.1 CAMBLR DEGREE 62.57 57.12 51.81 44.81 44.81	FT/SEC (711.6 732.7 741.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 50.10TY 2.1060 2.0269 1.9444 1.7507 1.5471 1.3853	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4811 .4388 .4053 .4167	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -4.6 5 1.1 OMEGA-B .1387 .1673 .1658 .0861 .0629 .0490	DEGREE  51.49 45.15 45.39 39.45 30.72 30.61 30.72 30.61 30.72 30.61 30.73 30.74 00.88	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0329 .0246 .0203	EGREE -22.74 -17.67 11.67 12.63 17.32 40.32 45.45 P01 5 .9346 .9275 .9637 .9852	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 958.3 947.5 947.5 943.1 1011.4 1044.7 1108.7 1108.7 1107.0 EFF-P STATIC .8832 .7375 .8632 .840 .840 .8687	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -577.5 -602.7 M-1 1.0012 1.0032 .9164 .8353 .7425 .6627	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8 -936.7 -955.2 -975.2 M-2 .6161 .6355 .6289 .5162	FT/SEC 571.5 591.6 681.6 681.6 773.1 930.8 953.7 975.3 M*=1 .6833 .7064 .7136 .7094 .7136 .7223 .7518	FT/SEC 599.3 616.4 636.7 780.5 952.1 954.7 976.3 M'-2 .8277 .8279 .8195 .8437 .9655
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -5.33	IN 13,580 19,110 19,740 21,600 24,200 26,880 29,600 30,270 INCM DEGREE 5,21 4,25 3,57 1,55 ,84 -,71 ,55 ,84 1,27	FT/SEC 1096.1 1102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 12.60 12.60 14.62 15.67	TYSEC 713.2 733.3 747.7 719.2 699.2 592.7 523.9 TURN DEGREE 54.91 46.21 38.25 33.16 31.05 31.54	FT/SEC 682.5 735.6 763.0 765.0 747.4 644.7 593.1 CAMBREE 62.57 57.12 57.12 44.81 44.83 45.97	FT/SEC   711.6   712.7   711.6   732.7   747.5   718.8   669.2   552.8   523.9   SOLIUTY   2.1060   2.0269   1.9444   1.7507   1.5471   1.3653   1.2855   1.2553	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4811 .4388 .4053 .3837 .4167	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.6 -1.5 0MEGA-B .1387 .1673 .1558 .0861 .0629 .0400 .0576	DEGREE  51.49 40.15 45.39 39.45 30.72 30.61 30.73 30.61 30.73 30.14  LOSS-P TOTAL .0329 .0413 .0244 .0224	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358 .0399 .0246 .0203 .0144 .0316	EGREE -22.74 -17.367 -11.67 17.325 -17	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.6 643.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 958.3 947.5 943.1 1011.4 1044.7 1108.7 1108.7 1107.0 EFF-P STATIC .8232 .7820 .7820 .7826 .8632 .8632 .8632 .8632 .8687 .8304	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.5 -602.7 M-1 1.0012 1.0012 1.0032 .9164 .8353 .7425 .6627 .6346	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -936.7 -955.2 -975.2 -975.2 -6161.653.6269.55162.4798	FT/SEC 571.5 571.5 591.6 681.6 681.6 773.1 864.1 930.8 953.7 975.3 M*-1 .6633 .7094 .7136 .7223 .7518 .7518 .7518	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M'-2 .8277 .8209 .8195 .8195 .8337 .9136 .9621 .9655
\$ SPAN 5 10 15 30 50 95 \$ SPAN 5 10 15 30 95 95 \$ SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -6.12	IN 13,580 19,1740 21,600 24,200 26,800 29,600 30,270 INCM DEGREE 5,21 4,25 3,57 1,55 ,84 -,71 ,71 ,71 ,71	FT/SEC 1096.1 1102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 12.60 12.60 14.62 15.67	TYSEC 713.2 733.2 747.7 719.2 699.2 592.7 523.9 TURN DEGREE 54.91 46.21 38.25 33.10 31.05	FT/SEC 682.5 735.6 763.0 765.0 747.4 644.7 593.1 CAMBREE 62.57 57.12 57.12 44.81 44.83 45.97	FT/SEC (711.6 732.7 741.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 50.10TY 2.1060 2.0269 1.9444 1.7507 1.5471 1.3853	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4811 .4388 .4053 .3837 .4167	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.65 1.1  OMEGA-B .1387 .1673 .1558 .0861 .0629 .0400 .0576	DEGREE  51.49 40.15 45.39 39.45 30.72 30.61 30.73 30.61 30.73 30.14  LOSS-P TOTAL .0329 .0413 .0244 .0224	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0329 .0246 .0203	EGREE -22.74 -17.367 -11.67 17.325 -17	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.0 843.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 958.3 947.5 943.1 1011.4 1044.7 1108.7 1108.7 1107.0 EFF-P STATIC .8232 .7820 .7820 .7826 .8632 .8632 .8632 .8632 .8687 .8304	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -548.5 -577.5 -602.7 M-1 1.0012 1.0032 .9164 .8353 .7425 .6627 .6346	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -936.7 -955.2 -975.2 -975.2 -6161.653.6269.55162.4798	FT/SEC 571.5 571.5 591.6 681.6 681.6 773.1 864.1 930.8 953.7 975.3 M*-1 .6633 .7094 .7136 .7223 .7518 .7518 .7518	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M'-2 .8277 .8209 .8195 .8195 .8337 .9136 .9621 .9655
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -5.33	IN 13,580 19,740 21,600 24,280 28,900 30,270 INCM DEGREE 5,21 4,25 4,25 4,25 4,25 4,25 4,25 4,25 4,25	FT/SEC 1096.1 1102.0 1084.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 12.60 12.60 14.62 15.67	TYSEC 713.2 713.2 713.3 747.7 719.2 692.7 592.7 552.6 523.9 TURN 0EGRSE 54.91 38.25 31.06 31.05 31.05	FT/SEC 682.5 735.6 783.8 765.0 646.3 614.7 593.1 CAMBLE 62.5 57.12 51.81 44.83 45.97 46.76	FT/SEC   711.6   712.7   711.6   732.7   747.5   718.8   669.2   552.8   523.9   SOLIUTY   2.1060   2.0269   1.9444   1.7507   1.5471   1.3653   1.2855   1.2553	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .5107 .4811 .4388 .4053 .3837 .4167	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.65 1.1 OMEGA-B .1387 .1673 .1558 .0861 .0861 .0400 .0576 .0792 .0955	DEGREE  51.49 40.15 45.39 39.45 30.72 30.61 30.73 30.61 30.73 30.14  LOSS-P TOTAL .0329 .0413 .0244 .0224	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358 .0399 .0246 .0203 .0144 .0316	EGREE -22.74 -17.367 -11.67 17.325 -17	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.6 643.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC   958.3   947.5   947.5   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   1107.0   EFF-P   STATIC   .8232   .7975   .8632   .8940   .8092	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -577.5 -602.7 M-1 1.0012 1.0033 .9164 .8352 .6627 .6346 .6157	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -870.8 -936.1 -955.2 -975.2 M-2 -6161 -6355 -6463 -6368 -6368 -4796 -4531	FT/SEC 571.5 591.6 615.1 681.6 773.1 930.6 953.7 975.3 M*-1 .6833 .7066 .7094 .7136 .7223 .755.6 .75036 .7434	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M'-2 .8277 .8209 .8195 .8195 .8337 .9136 .9621 .9655
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -5.33	IN 13,580 19,1740 21,600 24,200 26,890 29,600 30,270 INCM DEGREE 5.21 4.25 3.57 1.55 .8471 NCOR-1	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 834.7 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 19.63 15.21 12.50 14.62 15.67	TYSEC 713.2 733.3 747.7 719.2 699.7 552.6 525.9 TURN DEGREE 54.91 46.21 38.25 33.10 31.05 31.05 32.02	FT/SEC 682.5 735.6 783.8 765.0 646.3 614.7 593.1 CAMBLE 62.57 57.12 51.81 44.81 45.97 46.76	FT/SEC (711.6 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIDTY 2.1060 2.0269 1.9444 1.7507 1.5471 1.2855 1.2553	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 532.3 376.3 372.6 D-FAC .5400 .4388 .4053 .4167 .4411 .4683	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.65 1.1 OMEGA-B .1387 .1673 .1558 .0861 .0861 .0400 .0576 .0792 .0955	DEGREE  51.49 40.15 45.39 39.45 30.72 30.61 30.73 30.61 30.73 30.14  LOSS-P TOTAL .0329 .0413 .0244 .0224	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358 .0399 .0246 .0203 .0144 .0316	EGREE -22.74 -17.367 -11.67 17.325 -17	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.6 643.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC   958.3   947.5   947.5   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   1107.0   EFF-P   STATIC   .8232   .7975   .8632   .8940   .8092	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -577.5 -602.7 M-1 1.0012 1.0033 .9164 .8352 .6627 .6346 .6157	FT/SEC -641.5 -600.3 -582.5 -681.1 -757.8 -936.1 -955.2 -975.2 M-2 -6161 .6355 .6463 .6533 .6289 .5866 .5162 .4799 .4531	FT/SEC 571.5 591.6 681.6 681.6 773.1 930.6 953.7 975.3 M*=1 .6833 .7064 .7136 .7094 .7136 .7223 .7436 .7436 .7436	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M*-2 .8277 .8277 .8289 .8195 .8837 .9136 .9655 .9577 .9574
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.573 30.240 INCS DEGREE 1.230078 -3.28 -4.63 -6.85 -5.33	IN 13,580 19,1740 21,600 24,200 26,890 29,600 30,270 INCM DEGREE 5.21 4.25 3.57 1.55 .8471 NCOR-1	FT/SEC 1096.1 1102.0 1064.9 1015.7 933.2 750.9 720.7 700.5 DEV DEGREE 13.09 17.21 19.63 15.21 12.56 14.62 15.67 16.45	TYSEC 713.2 713.2 713.3 747.7 719.2 692.7 552.6 525.9 TURN 54.92 41.21 38.25 31.06 31.05 31.05 31.05 31.05 32.02	FT/SEC 682.5 735.6 783.8 765.0 746.3 614.7 593.1 CAMBLE 62.64 57.12 51.81 44.33 45.97 45.97 TO2/ TO2/	FT/SEC F 711.6 732.7 741.6 747.5 718.8 669.2 592.7 552.8 523.9 SOLIDTY 2.1060 2.0269 1.9444 1.7507 1.5471 1.3853 1.2855 1.2271 PC2/	FT/SEC 857.7 820.9 772.3 645.5 534.3 426.6 332.3 376.3 372.6 D-FAC .5400 .4053 .4053 .4053 .4053 .4053 .4054 .4058	FT/SEC ( -42.2 16.0 54.2 15.6 22.7 -3.8 -4.65 1.1 OMEGA-B .1987 .1558 .0861 .0629 .0576 .0792 .0955 EFF-F	DEGREE  51.49 40.15 45.39 39.45 30.72 30.61 30.73 30.61 30.73 30.14  LOSS-P TOTAL .0329 .0413 .0244 .0224	DEGREE D -3.42 1.23 4.18 1.19 1.81344305 .12 LOSS-P PROFILE .0329 .0358 .0399 .0246 .0203 .0144 .0316	EGREE -22.74 -17.367 -11.67 17.325 -17	DEGREE 42.03 39.32 38.14 42.32 46.50 57.68 59.94 61.75 CMEGA-B HOCK .0000 .0000 .0000	FT/SEC 740.1 770.2 778.3 786.3 802.9 841.7 848.6 643.7 845.6 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC   958.3   947.5   947.5   947.5   943.1   1011.4   1044.7   1098.7   1108.7   1104.0   1107.0   EFF-P   STATIC   .8232   .7975   .8632   .8940   .8092	FT/SEC 286.2 229.1 157.3 -36.3 -238.9 -437.5 -577.5 -602.7 M-1 1.0012 1.0033 .9164 .8352 .6627 .6346 .6157	FT/SEC -641.5 -600.3 -582.5 -681.3 -757.8 -936.7 -955.2 -975.2 M-2 -6161.6355.6462.6533.6226 ,4535.626.455.626.455.455.455.455.455.455.455.455.455.45	FT/SEC 571.5 591.6 681.6 681.6 773.1 930.6 953.7 975.3 M*=1 .6833 .7064 .7136 .7094 .7136 .7223 .7436 .7436 .7436	FT/SEC 599.3 616.4 636.7 780.5 867.0 932.1 954.7 976.3 M*-2 .8277 .8209 .8195 .8195 .9136 .9621 .95574 SLAN1~2 DEGREE

## Blade-Element and Overall Performance without Stator-Hub Slit Suction

			DIS	tue-El	Ginem	anu	VELAL	1 1 611	JIIII a.	100 1110	nout 5	tator -	ilub 5	iii buc	CIOII			
ROT	OR						100	n% of I	Design	Speed	}							
		D2 4	v/ -		1 4 4 4 - 4	./* 0		-	_	_		<b>.</b>						
% SPAN			V=1		VM-1	VM-2	V0-1	V0-2		B-2	81-1	B1-2	V'-1	V'-2	VC - 1	V05	U-1	U-2
		* IA	FIZALL	F 1/3EC	735.0	r 1/ar C				DEGREE								
5			597.6					914.0		53.49								
10			610.3				• 0		• -			-25.21			-455.2			542.0
15			623.5											746.2				
30		19.910			655.9										-590.1			
50			682.4					563.4					989.6			-182.0		
70			691.4					470.7					1054.6			-377.1		
85			689.0										1148.2			-497.5		923.6
90			686.9										1169.5			-529.1		
95	20.120	30.180	684.9	020.0	684.9	467.9	•	417.1	0 (	41.71	54.87	49.97	1190.2	727.7	-973.3	-557.2	973.3	974.3
	INCS	INCH	DEY	TUON	CAMOUO	<b>COL 197</b> 4												
% SPAN	DEGREE					SOFIDIA	D-FAC	OHEGA-6		LOSS-P				ONEGA-	3 M-1	M-2	M'-1	M1-5
5	-5.67		5.34			+ TTT	.2113	.2405		PROFILE								
10	-4.78					2.2858			=	• • -		.8714				1.0580		
15	m4.16										1.5798					1.0221		
30	-3.26			57.29 44.79		2.1569					1.5850				.5783			
50	-2.25					1.9040					1.5554				.6098			
70	85					1.6896					1.5205				6359		9252	
70 85	-, 19	=	12.78			1.5341					1.4772						1.0151	
	11		14.50			1.4420					1.4065				.6413		1.0743	
90	-,17		15.82								1.3770				6393		1-0927	
95	-,1,	3.17	13.02	4.70	17140	1.3890	.5148	.2125		2 .0447	1.3592	• (79B	. /024	• 01 à	.6375	•5434	1.1099	.6309
		MCOO-	WCOR-1	WC / 3 - 3	Tool	P02/	CEC .40	EFF-P							c	<b></b>		<del>-</del> -
			BM/SEC												SIA-I S			SLANT-2
		70 17 6		SOFT	101	POL		<u> </u>								<u>_</u>	EGREE	DEGREE
		2200	184-20	-	1 1346	1 4011	60 047										06 0=	
		7377	104.20	41.53	1.1340	1.7911	09.04/	90.40							5.0	6.0	86.02	95.02
STA	ГOR																	
~																		
	DIATI	DIA-Z	V-1	V-2	VM-1	VM-2	VQ-1	V0-2	B-1	B-2	B'-1	8'-2	V'-1	V'-2	VO'-1	V0'-2	U=1	U-2
% SPAN									DEGREE	DEGREE D	EGREE (	DEGREE F	T/SEC !	FT/SEC F	T/SEC	FT/SEC.	TISEC F	T/SEC
5	17.720									-4.04								
10	18.350	19.110	1050.1	665.0			797.7	7.8			-16.74			901.5				616.9
15			1034.0			675 <i>.2</i>	750.6	50.6			-10.75	40.99		894.5				
30			974.0					14.1	40.94		3.41	44.36		977.0				
50		24.200									17.52	47,92		1018.4				
70			843.8				461.4				29,71	52,53		1034.5				867.8
85			768.9					7			38,43	57,74		1104.5				
90		29.600			607.4		417.4	5.7	34.51					1097.9				
95	30.240	30.270	715.2	521.4	561.8	521.3	416.0	11.3	35.57	1.24	43.91	61.64	807.7	1097.6	-560.2	-462.9	976.2	977.2
														ere n		<b>M</b> A	用*-1	M+-2
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P	P02/ 0	MEGA-BE	FF-AU	EFF	M-1	M-5	M7	MA-S
	DEGREE I									PROFILE			TOTAL !		<b>,95</b> 00	.5579	.6323	,786g
5	2.11		12,46									•0000		, 5250				
10	1.33	5.59		48.78		2.0292		.1669	•0411		9262		• 3 303		.9500	.5731	.6498	.7770
15	.44	4.78				1.9474					.9332		•0000		.9331		.6567	.7731
30	-1.66	3,16				1.7532	.4635		.0163		.9746		• 1000		.8760			.8495
50	<b>,2.93</b>	2.58				1.5482	.4320		.0135		9852		•0200		8130	•5940	-5868	.8860
70	44.40		13.47			1.3866	.4123		.0139		.9880		• 3700		.7497	.5741	.7248	9443
85	#3.41		14.99			1.2866	.4467				9834		• 3700		.6769			9562
90	<b>#2.32</b>					1.2554	.4759		.0311				•0100		.6467	.4744	.7119	.9466
95		<b>* 14</b>	17 67	7U 157	ルエ ラエ		.5014	. 0899	.0366		. 0703	• 0000	•0000	.8314	.6256	.4480	•7066	.9431
	g1.62	2.14	17.57	34.32	40110	1.2271	. 2014	100-7	.0300	10000	02176	****	.,,,,,	• • • • •				
	#1.0¢								10300	,,,,,,	4717E		* 7005					** ANT *
	<b>91.0</b> 4	NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P	10300	•0000	4 7 1 7 E	00000	0,000			TA-2 S	LANT-1	
	#1.0<	NCOR-1	WCOR-1 BM/SEC (	WC/A-1	T02/									•		TA-2 S		

11.0 12.0 90.00 90.00

7,399 184-20 41-83 1.1346 1.4543 83.926 84-82

## Blade-Element and Overall Performance without Stator-Hub Slit Suction 100% of Design Speed

10011	OR						100%	6 OI DE	esign s	speea								
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	vo-1	V0-2	8-1	8-2	81-1	81-2	V*-1	V*-2	V01-1	V0 1-2	13-1	υ <b>−2</b>
% SPAN	\$N		T/SEC	T/SEC	FT/SEC I	FT/SEC F	T/SEC I	T/SEC F	DEĞRÊE D	EGREE	EGREE	DEGREE I	T/SEC F	I/SEC_F	TISEC F	TISEC	EIŽS <b>Ē</b> c	FT/SEC
10		16.030				647.1	• 0		•00	54.08			727.4					517.5
10 15		16.790					<b>▼</b> 0		•00	52.16		-25.08	756.1	731.0	-455,2	309,8	455.2	
30		19.910			610.6	661.4	•0		•00	49.89		-18.83	787.5		-489.7	229.4	489.7	
50		23.090					•0		*00 •00	45.21 41.87	42.26		877.1 985.3		-59 <sub>0 • 1</sub>	24.1	590·1 716·3	
70		26-260							<del></del>	38.52	-50.5 <sub>0</sub>		1082.6		-835.4			
85		28.610					•0	<del>-</del> -	•00	39.06	53.12	41.99	1148.1		-918.4			
90					687.7		•0	434.5	.00	41.18	53.99		1170.0		-946.5			
96	30.150	30.180	686.4	636.1	686.4	466.3	٠Ù	432.7	•00	42.86	54.80	49,26	1191.0	714.7	-973.3	-541,6	973.3	974.3
	INCS	INCM	DEV			SOLIDTY	D-FAC	MEGA-B	LOSS-P	Loss-P	P02/	EFF-P	FF-AD O	MEGA-B	M-1	M-2	M'-1	M1-5
	DEGREE (								TOTALP	ROFILE	P01	TOTAL .	OTAL SI					
5 10	-5.39 -4.49	1.53 2.18			70.83		.2486	-2186	.0388		1.5335			•0000		1.0119	-6718	
15	-3.85	2.45		57.28	65.92 62.89		•3010 •3501	•1217 •0675	.0241 .0148		1.5679	•9298	+ <sup>9</sup> 2 <b>52</b>	+0000		.9851	.7009	
30	-2.94				53.20		+4507		-0152		1.5743		.9539 .9818	•0000		.9469	.7308	
50	-2.00		12.11			1.6904	5091	.0318	•0090		1.5289		9660	•0000		•8432 •7415		
70	76				<del>- 26.99</del>					0070	1 5200	9594	9571	6092			1.0099	
85	20				19.71		.4994	0964	0248		1.4558	8791	8726	+0148	-6416		1.0721	.6347
90					18.34		.5193	-1446	+0355		1.4266		.8068	+0168			1.0918	
95	22	3.15	15+11	5,54	17.48	1.3891	.5308	.1773	.0416	.0371	1.4091	.7718	.7606		.6392		1-1101	
		NC00-1	MenB-1	Wa / 1 1	T00/	0004	FFF							_				
			WCOR-1				EFF-AD	F++-h						5	TA-1 ST			
		RPM LE		OFT	101	P01	7										GREE (	EGREE
		7398			1+1348	1-5091	92.536	93.07							5.0	6.0	86.05	95 03
															300	4.0		-0192
STA	TOR																	
STA		014-2	v_1	uma.	1/14-1	104-0	V0=1	ivoa	0~1	0-2	21-1	842	W 4	v•-3	V04-1	V01-0	1	112
	DIA-1	DIA-2		V-2	VM-1	VM-2	VO-1	V0-2	8~1 DEGDEE	B=2 DEGDEE	B'-1	8'-2 DEGDEE	V'-1 FT/SFC		V0*-1		U-1 FT/SFC	U=2 FT/SFC
STA * SPAN 5	DIA-1	1N	F7/SEC	ET/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGREE	DEĞREE.	DEGREE	DEGREE	FT/SEC !	ET/SEC.	ET/SEC	ET/SEC	FT/SEC.	FT/SEC_
% SPAN	DIA-1 17.720	18,580	F7/SEC 1011.0	610.	FT/SEC	FT/SEC 608.7	FT/SEC 808.1	FT/SEC -44.5	DEGREE 53.07	<del>DEĞREE</del> -4-20		DEGREE 4 46.62	651.8 668.3	686.5 87 <sub>0+2</sub>	236.1 188.9	FT/SEC -644.3	FT/SEC 572.0	FT/SEC 599.8
% SPAN 5	DIA-1 17.720 18.350 19.070	18.580 19.110	77/SEC 1011.0 1010.6 994.9	610. 622. 635.	FT/SEC 7 607.4 9 640.9 4 669.2	FT/SEC 608.7 622.3	808.1 781.2 735.9	FT/SEC -44.5	DEGREE 53.07 50.63 47.71	<del>DEĞREE.</del> -4•20 •79 4•24	<b>DEGREE</b> -21.20	DEGREE 4 46.62 3 44.33	651.8 668.3	686.5 87 <sub>0</sub> .2 865.9	236.1 188.9	-608,1	572.0 592.4 615.0	599.8 616.9 637.2
% SPAN 5 10	DIA-1 17.720 18.356 19.070 21.140	18.580 19.110 19.740 21.600	77/SEC 1011.0 1010.6 1010.6 994.9	610. 622. 635.	FT/SEC 7 607,4 9 640,9 4 669,2 1 701.5	FT/SEC 608.7 622.3 633.6 667.9	781 -2 735 -9	FT/SEC -44.5 8.8 47.0	DEGREE 53.07 50.63 47.71	<del>DEĞREE.</del> -4•20 •79 4•24	-21.20 -16.4 -10.2	DEGREE 4 46.62 3 44.33 0 42.97 1 45.55	651.8 668.3 680.6 705.0	FT/SEC 886.5 87 <sub>0</sub> .2 865.9 954.0	236.1 188.9 120.3	-644.3 -608.1 -590.2 -681.1	572.0 592.4 615.0	FT/SEC 599.8 616.9 637.2 697.3
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.070 21.140 23.970	18,580 19,110 19,740 21,600 24,200	1011.0 1011.0 1010.6 994.9 941.7 883.0	610. 622. 635. 668.	FT/SEC 7 607.4 9 640.9 4 669.2 1 701.5 2 700.1	608.7 622.3 633.6 667.9 655.6	781.2 781.2 735.9 628.0	### 5 47 0 16 + 27 + 5	53.07 50.63 47.71 41.82 37.52	DEGREE -4 • 20 • 79 4 • 24 1 • 39 2 • 40	21.20 -16.43 -10.20 4.43 18.56	DEGREE 4 46.62 3 44.33 0 42.97 1 45.53 5 48.97	651.8 668.3 680.6 705.0 739.9	FT/SEC 886.5 876.2 865.9 954.0 999.1	236.1 188.9 120.3 -54.5	ET/SEC -644.3 -608.1 -590.2 -681.1	572.0 572.0 592.4 615.0 682.4	FT/SEC 599.8 616.9 637.2 697.3
% SPAN 5 10 15 30	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200	994.9 941.7 883.0	610 622 635 668 656 647	FT/SEC 7 607.4 9 640.9 4 669.2 1 701.6 2 700.1 6 690.6	608.7 608.7 622.3 633.6 667.7 655.6	808.1 781.2 735.9 628.0 537.9	-44.5 -44.5 -47.0 16.2 -27.5	53.07 50.63 47.71 41.82 37.52	DEGREE -4.20 .79 4.24 1.39 2.40	21.20 -16.41 -10.21 -10.21 -18.50 -29.91	DEGREE 4 46.62 3 44.33 0 42.97 1 45.55 5 48.97	651.8 668.3 680.6 705.0 739.9	FT/SEC 886.5 876.2 865.9 954.0 999.1	236.1 188.9 120.3 -54.5 -235.9	FT/SEC -644.3 -608.1 -590.2 -681.1 -753.7	572.0 572.0 592.4 615.0 682.4 773.0	57/SEC 599.8 616.9 637.2 697.3 781.2
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880	778.1	610 622 635 656 656 656 601	7 607.4 9 640.9 4 669.2 1 701.5 2 700.1 6 690.6 6 646.1	608.7 608.7 622.3 633.6 667.9 655.6 647.4	808.1 781.2 735.9 628-0 537.9 466-6	## 55	53.07 50.63 47.71 41.82 37.52 34.03 33.88	DEGREE -4.20 .79 4.24 1.39 2.40	21.20 -16.43 -10.21 -18.50 -29.91 -37.60	DEGREE 4 46.62 3 44.33 0 42.97 1 45.55 5 48.97	651.8 668.3 680.6 705.0 739.9	FT/SEC 886.5 876.2 865.9 954.0 999.1	236.1 188.9 120.3 -54.5 -235.9	FT/SEC -644.3 -608.1 -590.2 -681.1 -753.7	572.0 572.0 592.4 615.0 682.4 773.0	599.8 616.9 637.2 697.3 781.2 867.7 932.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.356 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	778-1 748-7	610. 622. 635. 656. 656. 601.	7 607.4 9 640.9 4 669.2 1 701.5 2 700.1 6 690.6 6 646.1 2 611.8	FT/SEC 608.7 622.3 633.6 657.7 655.6 647.4 600.9	808.1 781.2 735.9 628.0 537.9 466.6 433.6	## 16+2 16+2 16+2 27+5 16+8 7-1 12+2	553.07 50.63 47.71 41.82 37.52 34.03 33.88	0EGREE -4.20 .79 4.24 1.39 2.40 1.46 1.26	21.21 -21.21 -16.41 -10.2 4.4 18.50 29.9 37.66	DEGREE 4 46.62 3 44.33 0 42.97 1 45.55 5 48.97 5 52.73 4 57.02 4 59.26	651.8 668.3 680.6 705.0 739.9 798.0 816.0	FT/SEC 886.5 876.2 865.9 954.0 999.1 1069.5	236.1 188.9 120.3 -54.5 -235.9 -398.3 -498.0	ET/SEC -644.3 -608.1 -590.2 -681.1 -753.1 -851.6 -925.8 -943.1	FT/SEC 572.0 592.4 615.0 682.4 773.0 864.4 931.0	599.8 616.9 637.2 697.3 781.2 867.7 932.9 955.5
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.356 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880	778-1 748-7	610. 622. 635. 656. 656. 601.	7 607.4 9 640.9 4 669.2 1 701.5 2 700.1 6 690.6 6 646.1	FT/SEC 608.7 622.3 633.6 657.7 655.6 647.4 600.9	808.1 781.2 735.9 628.0 537.9 466.6 433.6	## 44 + 5 ## 47 + 6 ## 47 + 6 ## 16 + 2 ## 27 + 5 ## 16 + 8 ## 7 + 1 ## 12 + 2	553.07 50.63 47.71 41.82 37.52 34.03 33.88	0EGREE -4.20 .79 4.24 1.39 2.40 1.46 1.26	21.21 -21.21 -16.41 -10.2 4.4 18.50 29.9 37.66	DEGREE 4 46.62 3 44.33 0 42.97 1 45.55 5 48.97 5 52.73 4 57.02 4 59.26	651.8 668.3 680.6 705.0 739.9	FT/SEC 886.5 876.2 865.9 954.0 999.1 1069.5	236.1 188.9 120.3 -54.5 -235.9 -398.3 -498.0	ET/SEC -644.3 -608.1 -590.2 -681.1 -753.1 -851.6 -925.8 -943.1	FT/SEC 572.0 592.4 615.0 682.4 773.0 864.4 931.0	599.8 616.9 637.2 697.3 781.2 867.7 932.9 955.5
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.356 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	778-1 748-7	610. 622. 635. 668. 656. 647. 601. 551.	F7/SEC 7 607.4 9 640.9 4 669.2 1 701.5 700.1 6 690.6 611.8 5 586.7	608.7 622.3 633.6 667.9 655.6 647.4 600.9 534.4	FT/SE6 808.1 781.2 735.9 628.0 537.9 466.6 431.0 431.0	-44.5 -44.5 -44.5 -47.0 -16.2 -27.5 -16.8 -7.1 -12.2 -7.1	DEGRÉE 53.07 50.63 47.71 41.82 37.52 34.03 33.88 35.34	-4 · 20	21.24 -16.43 -16.43 -10.2 -4.43 -18.56 -29.9 -37.66 -40.56 -42.8	DEGREE 4 46.62 3 44.33 42.97 1 45.53 48.97 4 59.26 6 60.92	651.8 668.3 680.6 705.0 739.9 798.0 816.0	FT/SEC 686.5 879.2 865.9 954.0 999.5 1109.5 1109.5	236.1 188.9 120.3 -54.5 -235.9 -398.3 -498.0	ET/SEC -644.3 -608.1 -590.2 -681.1 -753.1 -851.6 -925.8 -943.1	FT/SEC 572.0 592.4 615.0 682.4 773.0 864.4 931.0	599.8 616.9 637.2 697.3 781.2 867.7 932.9 955.5
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.356 19.070 21.140 23.970 28.860 29.570 30.240 INCS	1N 18.580 19.110 19.740 21.600 24.200 28.880 28.800 30.270	FT/SEC 1011.0 1010.6 994.9 941.7 883.0 833.4 778.1 778.1 728.4	610. 622. 635. 668. 656. 677. 601. 551. TURN	7 607.4 640.9 4 669.2 7 701.5 2 701.5 6 690.6 0 646.1 2 611.8 5 586.7	608.7 622.3 633.6 667.9 655.6 647.4 600.9 534.4	FT/SE6 808.1 781.2 735.9 628.0 537.9 466.6 431.0 431.0	-44.5 -44.5 -44.5 -47.0 -16.2 -27.5 -16.8 -7.1 -12.2 -7.1	DEGREE 53.07 50.43 47.71 47.82 5 37.52 34.03 33.88 2 35.21 36.34	-4.20 +79 4.24 1.39 2.40 1.46 1.76 1.76 LOSS-P	21 - 21 - 21 - 21 - 21 - 21 - 21 - 21 -	DEGREE 4 46.62 3 44.31 1 42.97 48.97 5 52.72 4 57.02 6 60.92 0ME6A-B	FT/SEC 651.8 668.3 680.6 735.9 739.9 739.0 816.0 805.5	FT/SEC 686.5 870.2 865.9 954.0 999.1 104.0 1099.3 EFF-P	FT/SEC 236.1 188.9 120.3 -54.5 -235.9 -398.3 -523.0 -544.5	FT/SEC -644.3 -608.1 -590.2 -681.1 -753.1 -923.3 -943.3 -960.7	FT/SEC 572.6 592.4 615.6 682.4 773.6 864.1 864.1 873.6 976.1 M*-1	FT/sEC 599.8 616.9 637.2 697.3 781.2 3 781.2 957.5 952.9 955.5 977.2 M*-2
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.140 23.970 28.860 29.570 30.240 INCS	1N 18.580 19.110 19.110 21.740 24.200 28.900 29.600 30.270 INCM DEGREE 7.13	FT/SEC 1011.0 1010.6 1994.9 941.7 883.0 833.4 778.1 778.7 728.4 DEV BEGREE 12.29	610. 622. 635. 668. 656. 647. 601. 534. TURN DEGREE 57.2	7 607.4 9 669.2 1 701.1 5 698.4 6 646.1 2 611.5 5 586.7 CAMBER DEGREE 7 62.54	FT/SEC 608.7 622.3 633.6 667.9 655.6 647.4 500.9 534.4 SOLIDTY	FT/SEC 808-1 781-2 735-5 628-0 537-5 431-2 431-5 431-5 431-5 	FT/SEC -44.5 8.8 9.47.0 16.2 27.5 16.4 7.1 12.2 7.16.4 0MEGA-B	DEGREE 53.07 50.63 47.71 41.82 37.52 34.03 35.21 36.34 10SS=P TOTAL ,0335	-4.20 +79 4.24 1.39 2.40 1.46 1.76 1.76 LOSS-P PROFILE	21.24 =16.44 =16.44 =10.21 4.45 18.59 37.61 40.51 42.81 P02/ -940	DEGREE 4 46.62 3 42.97 1 45.53 6 48.97 5 52.06 4 59.26 6 60.92 0ME6A-B 5HOCK	FT/SEC 651.8 668.3 689.6 705.9 739.9 798.9 816.0 800.5 EFF-AD TOTAL .0000	FT/SEC 886.5 876.2 865.9 999.1 1069.5 1104.0 1097.7 1099.3 EFF-P STATIC .8246	FT/SEC 236.1 188.9 120.3 -54.5 -235.9 -398.3 -523.0 -544.5 M-1	ET/SEC -644.3 -698.1 -590.2 -681.1 -753.6 -925.8 -943.3 -960.7 M-2	FT/SEC 572.6 592.4 592.4 662.6 672.6 672.6 973.6 974.6 976.6 M'-1	FT/SEC 599.8 616.9 637.2 697.3 781.2 867.7 955.5 977.2 M*-2
\$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.860 29.570 30.240 INCS	1N 18.580 19.110 19.140 21.400 24.200 28.900 28.900 30.270 1NCM DEGREE 7.13	FT/SEC 1011.0 1010.6 1994.7 883.0 833.4 778.1 748.7 728.4 DEV 0EGREE 16.74	610. 622. 635. 656. 656. 656. 5514. 534. TURN DEGREE 57.2.	7 607.4 669.2 7 701.5 7 701.5 6 690.4 6 646.1 6 646.1 CAMBER DEGREE 7 62.57	FT/SEC 608.7 622.3 633.6 667.9 655.6 647.9 551.9 551.9 551.9 2.1076	FT/SEC 808-1 735-5 628-6 537-5 466-6 431-7 D-FAC -5917 *5679	FT/SEC -44.5 8.8 47.0 16.2 27.5 16.8 7.1 12.2 7.16.4 0MEGA-B	DEGREE 5 53.07 50.63 47.71 41.82 37.52 37.52 37.52 33.88 2 35.21 36.34 3 LOSS~P TOTAL 0335 4037 4037 4037 4037 4037 4037 4037 4037	-4.20 -79 4.24 1.39 2.40 1.46 1.26 1.76 LOSS -P PROFILE .0335 .0417	21 - 21 - 21 - 21 - 21 - 21 - 21 - 21 -	DEGREE 4 46.62 3 44.33 1 45.53 6 48.97 5 52.72 4 59.22 6 60.92 OMEGA-B 5HOCK 9 0000	651.8 668.3 680.6 705.0 739.9 739.9 816.0 805.1 800.5 EFF-AD TOTAL .0000	FT/SEC 886.5 876.9 959.1 1069.5 1104.0 1097.7 1099.3 EFF-P STATIC .7897	FT/SEC 236.1 188.9 120.3 -544.5 -235.9 -398.3 -498.0 -523.0 -544.5 M-1	FT/SEC -644.3 -698.1 -590.2 -753.1 -753.1 -943.7 -943.7 -943.7 -943.7 -943.7	FT/SEC 5 572.6 5 592.4 6 612.4 7 773.6 6 682.4 9 773.6 8 684.4 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	FT/SEC 599.8 537.2 637.2 697.3 781.2 781.2 782.9 595.5 977.2 M*-2 ***********************************
\$ SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15	DIA-1 17.720 18.356 19.070 21.140 23.970 26.790 29.576 30.240 INCS 8EGREE 3.16	IN 18.580 19.110 19.740 21.600 24.200 28.900 30.270 INCM DEGREE 7.13	FT/SEC 1011.0 1010.6 1994.7 883.0 778.1 728.4 DEV DEGREE 12.29 19.68	610.0 622.0 635.4 668.0 656.0 647.0 601.0 534.0 TURN DEGREE 57.2 43.44	FT/SEC 7 607.4 9 669.2 1 701.5 2 700.1 6 696.1 2 611.8 5 586.7 CAMBER DEGREE 7 59.54 7 57.06	FT/SEC 608.7 622.3 633.6 667.9 655.6 647.9 600.9 534.4 SOLIDTY	FT/SEC 808.1 735.9 628.0 537.9 466.6 431.9 431.7 D-FAC .5917 .5679	FT/SEC -44.5 8.8 9 47.0 16.2 27.5 16.8 7.1 12.2 16.4 0MEGA-B	DEGREE 53.07 52.63 50.63	DEGREE -4.20 +.79 4.24 1.39 2.40 1.48 1.76 LOSS-P PROFILE .0315 .040 0.400	DEGREE -21-24 - 16-4 - 16-4 - 18-5 - 29-9 - 18-5 - 40-5 - 40-5 - 42-8 - 902 - 903 -	DEGREE 4 46.62 3 42.97 1 45.55 5 48.97 5 52.72 4 57.02 4 57.02 6 60.92 OMEGA-B 5HOCK 9 .0000 1 .0000 1 .0000	551.8 568.3 680.5 739.9 798.0 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000	FT/SEC 886.5 876.5 954.0 1099.1 1104.0 1097.7 1099.3 EFF-P STATIC .8246 .7927	FT/SEC 236.1 180.3 120.3 -54.5 -235.9 -398.3 -498.0 -523.0 -544.5 M-1	FT/SEC -644.3 -690.2 -681.1 -753.7 -925.8 -943.3 -960.7 M-2 .5243 .53476	FT/SEC 3 572-0 592-0 682-0 773-0 864-0 773-0 864-0 773-0 864-0 773-0 864-0 864-0 864-0 864-0 864-0 864-0 864-0 864-0 864-0 864-0 864-0 865-0	FT/SEC 599.8 615.9 667.2 697.3 781.2 867.7 932.9 955.5 977.2 M*-2 M*-2 4.7610 6.7463 7463
\$ SPAN 5 10 15 30 50 70 85 90 96 \$ \$ \$ \$ 10 15 30 50 70 85 90 91 95	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.866 29.576 30.246 INCS 856REE 3.16 2.56	1N 18.580 19.110 19.110 21.600 24.200 28.900 28.900 30.270 1NCM DEGREE 7.13 6.81 5.96	FT/SEC 1011.0 1010.6 1994.7 883.0 941.7 883.0 778.1 778.1 728.4 DEV 0EGREE 12.29 16.74 15.37	7/SEC 610. 632. 635. 668. 656. 671. 5514. 57.22 49.84 40.44	7 607.4 9 669.2 1 701.1 5 690.1 2 701.1 5 586.1 2 611.8 6 62.5 7 62.5 7 62.5 7 57.0 7 57.0	FT/SEC 608.7 622.3 633.6 667.9 655.6 647.4 600.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 1.9484 1.7544	FT/SEC 808.1 781.2 735.5 628.0 537.5 431.5 431.5 431.7 D-FAC .5515 .4734	FT/SEC -44.5 8.8 47.0 16.2 27.5 16.8 7.1 12.2 16.4 0MEGA-B 7.1417 1598 1598 1598 1598 1598	DEGREE 53.07 52.07 41.82 537.52 34.03 33.88 35.21 36.34 0335 0417 0416 0189	-4-20 -7-9 4-24 1-39 2-40 1-26 1-76 LOSS-P PROFILE -0335 -0417 -040 -0189	DEGREE -21.24 -16.22 -16.24 -4.45 -18.55 -29.96 -40.55 -42.88 -940 -940 -935 -935 -975	DEGREE 4 46.62 44.97 45.55 5 48.97 4 57.02 4 57.02 6 60.92 OMEGA-B 5HOCK 9 .0000 1 .0000 1 .0000 1 .0000 1 .0000	651.8 668.3 680.6 739.9 739.9 739.9 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000	FT/SEC 886.5 876.2 865.9 954.0 999.1 1097.7 1099.3 EFF-P STATIC .8246 .7897 .7927	FT/SEC 236.1 180.3 180.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .8940 .8445	FT/SEC -644.3 -694.3 -75375	FT/SFC 572-6 572-6 572-6 572-6 592-4 773-6 582-4 773-6 582-4 7976-1 875-6 592-6 695-	FT/SEC 599.8 616.9 637.2 697.3 781.2 867.7 697.3 781.2 957.2 955.5 977.2 M°-2 M°-2 4.7610 7463 6.7463 6.7463 6.7463 6.7463 6.7463 6.7463 6.7463 6.7463
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 5 5	DIA-1 17.720 18.350 19.070 21.170 23.970 26.790 28.860 29.573 30.240 INCS 866R56 2.566 1.63	1N 18.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 1NCM DEGREE 7.13 6.81 5.96 4.07 3.53	FT/SEC 1011-0 1010-0	610. 622. 635. 668. 656. 656. 534. 534. 534. 43.4 43.4 43.4	7 607.4 7 607.4 9 669.2 1 701.5 2 690.1 6 646.1 6 586.7 CAMBER 0 646.8 0 59.57 7 62.54 1 59.57 3 51.72	FT/SEC 608.7 608.7 633.6 667.9 655.6 647.9 600.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 1.75449	FT/SEC 808.1 781.2 735.5 628.6 433.6 431.5 431.7 D-FAC .5917 .5579 .4734	FT/SEC -44.5 8.8 47.0 16.2 27.5 16.8 7.1 12.2 7.16.4 0MEGA-B 7.1417 1.1592 1.1598 1.0663 1.0663	DEGREE 5 53.07 50.63 47.71 41.82 37.52 34.03 35.21 36.34 36.34 36.34 1.055~P TOTAL 0.0406 0.0189 0.0189	-4-20 -7-20 4-24 1-39 2-40 1-46 1-26 1-7-6 LOSE -0313 -0417 -0400 -0189 -0136	DEGREE -21.24 -16.42 -16.44 -18.45 -19.99 -40.55 -42.88 -940 -940 -940 -940 -940 -940 -940 -940	DEGREE 4 46.62 3 44.93 1 45.53 42.93 1 45.53 45.72 4 57.02 6 60.92 0 000 6 0000 6 000 6 00	651.8 668.3 680.6 705.6 739.9 739.9 816.0 800.5 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 886.5 876.2 865.9 954.0 999.1 1069.5 1104.0 1097.7 1099.3 EFF-P STATIC .8246 .7897 .7927 .8950 .9232	FT/SEC 236.1 188.9 120.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .9095 .8940 .7874	ET/SEC -644.3 -608.1 -590.2 -681.1 -753.1 -925.8 -943.3 -960.7 -953.5 -5796.5	FT/SFC 5 72 - 1 5 92 - 1 6 15 - 1 6 15 - 1 6 16 2 - 1 7 77 3 - 1 8 64 1 8 931 - 6 9 7 9 7 6 - 1 6 - 6 1 4 5 6 - 6 5 9 5 6 - 7 9 5 7 9 9 5 7 9 9 5 7 9 9 5 8 9 9 5 8 9 9 5 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	FT/SEC 5 599.8 6 16.9 6 37.2 6 697.3 781.2 78
% SPAN 5 10 15 30 50 70 96 95 % SPAN 5 10 15 30 96	DIA-1 17.720 18.356 19.070 21.140 23.970 26.790 29.576 30.240 INCS 8EGREE 3.16 2.74 -1.97	IN 18.580 19.110 19.110 21.600 24.200 28.900 29.600 30.270 INCM DEGREE 7.13 5.96 4.07 3.53	FT/SEC 1011.0 1010.0	### ### ##############################	7 607.49 4 669.2 7 701.15 5 690.1 5 696.1 6 611.8 6 611.8 7 62.5 7 62.5 7 63.1 7 64.1 7 63.1 7 63.1 7 63.1 7 63.1 7 63.1 7 63.1 7 63.1 7 63.1 7 64.1 7 65.1 7 7 7 7 7 7 7	FT/SEC 608.7 622.3 633.6 667.9 655.6 640.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 1.75489 1.3868	FT/GEC 808.1 781.2 735.4 628.0 537.5 433.6 431.3 D-FAC .5917 .5879 .5355 .44734	FT/SEC -44.5 8.8 47.0 16.2 27.5 216.8 7.1 12.2 7.16.4 0MEGA-B 7.1417 1692 1588 4.0463 0.0426 0.0388	DEGREE 5 53.07 50.63 47.71 41.82 37.52 37.52 33.88 35.21 36.34 1005S-P TOTAL 10180 10180 10180 10180 10180	-4-20 -7-20 1-39 2-40 1-26 1-76 LOSS-PPROFILE -0335 -0140 -0189 -0140	DEGREE -21.24 -16.44 -10.24 -18.59 -29.49 -40.55 -40.55 -42.80 -901 -9409 -9355 -985 -985 -988	DEGREE 46.62 44.97 1 45.55 48.97 45.95 5 52.02 45.96 6 0.92 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	651.8 668.3 680.6 735.9 739.9 739.9 816.0 800.5 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 886.5 876.2 865.9 954.0 999.1 1069.5 1104.0 1097.7 1099.3 EFF-P STATLC .8246 .7897 .7927 .8950 .9232 .9187	FT/SEC 236.1 188.9 120.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .9495 .8940 .8445 .7399	FT/SEC -644.3 -698.1 -698.1 -753.6 -785.1 -785.1 -785.3 -786.3 -7	FT/SEC 572-6 572-6 613-4 662-7 773-1 869-1 873-6 873-6 976-1 8-6556 6332 6332 6332 6332 6332 6332 6332 6332 6332	FT/SEC 9 599.8 515.9 6 637.2 6 697.3 761.2 867.7 6 932.9 6 955.5 977.2 M*-2 M*-2 M*-2 1.7610 3.7481 5.7463 2.8674 9294
\$ SPAN 5 10 15 30 50 70 85 30 50 70 15 30 50 70 70 85 85 85 85 85 85 85 85 85 85 85 85 85	DIA-1 17.720 18.356 19.070 23.970 28.860 29.576 30.240 INCS EGREE 3.16 2.56 1.6374 -1.97	IN 18.580 19.110 19.740 21.600 24.200 28.900 30.270 INCM DEGREE 7.13 5.96 4.07 3.53 3.63	FT/SEC 1011.0 1010.6 1994.7 883.0 778.1 728.4 DEV DEGREE 12.29 16.68 15.37 13.17 15.73	775EC 610 - 610 - 625 - 625 - 635 - 635 - 635 - 635 - 647 - 601 -	7 607.4 9 669.2 1 701.1 6 696.1 2 701.1 6 696.1 2 586.7 CAMBER 7 62.54 7 57.06 3 51.72 44.77 45.30	FT/SEC 608.7 622.3 633.6 667.9 655.6 600.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 2.1076 1.9484 1.5486 1.2866	FT/SEC 808.1 781.2 735.5 628.0 537.5 431.5 431.5 0-FAC .5917 .5917 .5355 .4734 .4423 .4423	FT/SEC -44.5 8.8 9 47.0 16.2 27.5 16.8 7.1 12.2 7 16.4 0MEGA-B 7 .1417 1598 1598 10422 10422 10561	DEGREE 53.07 52.63 47.71 41.82 537.52 34.03 33.08 82 35.21 36.34 7.0335 7.0406 0189 0136 0128	OF GREE  -4-20 -7-7  4-24  1-39  2-40  1-69  1-26  1-76  LOSS-P  PROFILE  0335  -040  0136  0218	DEGREE -21.24 -16.42 -16.42 -16.22 -16.23 -16.23 -16.25 -1	DEGREE 4 46.62 44.97 1 45.55 5 48.97 5 52.72 4 57.02 4 57.02 6 60.92 0 MEGA-B 5 4000 5 4000 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	51.8 568.5 680.5 739.9 798.0 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 886.5 876.5 954.0 999.1 1069.3 1099.3 EFF-P STATIC .8246 .7897 .7927 .8950 .9232 .9232 .9383	FT/SEC 236.1 180.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9(95 .8940 .8445 .7379 .6858	FT/SEC644.3590.2681.1753.4925.6925.6943.3960.7 M-25243.5569756265200	FT/SFC 5 72 - 1	FT/SEC 599.8 637.2 697.3 781.2 867.7 955.5 977.2 M*-2 M*-2 M*-2 M*-2 .7463 .7463 .8677 .9294 .9552
\$ SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.860 29.576 30.240 INCS 856R55 1.63 2.56 1.63 -74 -1.97 -2.87	1N	FT/SEC 1011.0 1010.6 1994.7 883.0 941.7 883.0 778.1 728.4 DEV DEGREE 12.29 16.74 15.37 15.37 16.98	775EC 610. 622. 635. 668. 656. 677. 5514. 57.2 49.4 43.4 40.4 35.2 33.2 669.	FT/SEC 49 7 6469 25 6469 25 7 7 6469 25 7 7 6946 18 7 7 6946 18 7	FT/SEC 608.7 622.3 633.6 667.9 655.6 647.9 655.6 647.9 534.4 SOLIDTY 2.1076 2.1076 2.10366 1.2866 1.2554	FT/SEC 808.1 735.2 735.2 628.0 537.3 431.2 431.2 431.3 431.3 441.3 4423 4423 4473 4473 4473	FT/SEC -44.5 8.8 47.0 16.2 27.5 16.4 12.2 16.4 0MEGA-B 7.1417 1598 1.1598 1.1598 1.0422 1.0561 1.0772	DEGREE 53.07 50.07	-4-20 -7-9 4-24 1-39 2-40 1-26 1-76 LOSS-P PROFILE -0335 -0417 -0189 -0189 -0218 -0218	DEGREE -21.24 -16.22 -16.24 -4.45 -18.55 -29.96 -40.55 -42.88 -940 -940 -940 -935 -985 -985 -985 -986 -986	DEGREE 4 46.62 44.97 1 45.53 5 48.97 4 57.02 4 57.02 4 59.26 6 60.92 0 0000 1 0000	FT/SEC 651.8 680.5 705.0 739.9 739.9 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 886.5 876.5 954.0 954.0 11097.7 1099.3 EFF-P STATIC .8246 .7895 .9232 .9187 .8810 .84476	FT/SEC 236.1 180.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .8940 .8445 .7874 .7399 .6858	FT/SEC -644, 1 -590, 2 -681, 1 -753, -7851, 2 -7	FT/SEC 572-1 592-1 682-1 773-1 864-1 873-1 8	FT/SEC 599.8 616.9 637.2 697.3 781.2 867.7 932.9 955.5 977.2 M*-2 M*-2 M*-2 8277 8674 7463 7463 6277 8674 9294 9552 9454
\$ SPAN 5 10 15 30 50 70 85 30 50 70 15 30 50 70 70 85 85 85 85 85 85 85 85 85 85 85 85 85	DIA-1 17.720 18.356 19.070 23.970 28.860 29.576 30.240 INCS EGREE 3.16 2.56 1.6374 -1.97	IN 18.580 19.110 19.110 21.600 24.200 28.900 30.270 INCM DEGREE 7.13 5.96 4.97 3.63 4.99 5.92	FT/SEC 1011.0 1010.6	610. 622. 635. 668. 656. 651. 534. TURN 0EGREE 57.2 49.44 43.47 49.44 33.25 33.25 33.25	7 607.49 4 669.2 7 701.16 5 696.1 2 611.8 5 696.1 2 611.8 5 70.0 6 611.8 6 611	FT/SEC 608.7 622.3 633.6 667.9 655.6 640.9 534.4 SOLIDTY 2.1076 1.9484 1.2866 1.2866 1.2854	FT/SEC 808.1 781.2 735.6 628.0 537.5 433.6 431.3 433.7 D-FAC .5917 .5675 .4734 .4423 .4423 .4423 .4423	FT/SEC -44-5 -48-8 47-0 16-2 27-5 27-16-8 -7-1 12-2 16-4 0MEGA-B -0422 -0422 -0422 -0422 -0772 -0872	DEGREE 53.07 50.07	-4-20 -7-9 4-24 1-39 2-40 1-26 1-76 LOSS-P PROFILE -0335 -0417 -0189 -0189 -0218 -0218	DEGREE -21.24 -16.22 -16.24 -4.45 -18.55 -29.96 -40.55 -42.88 -940 -940 -940 -935 -985 -985 -985 -986 -986	DEGREE 4 46.62 44.97 1 45.53 5 48.97 4 57.02 4 57.02 4 59.26 6 60.92 0 0000 1 0000	FT/SEC 651.8 680.5 705.0 739.9 739.9 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 886.5 876.5 999.1 1099.1 1104.0 1097.7 1099.3 EFF-P STATIC .8246 .7897 .7927 .8950 .9232 .9232 .8810 .8476 .8349	FT/SEC 236.1 120.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .8940 .8445 .7874 .6858 .6366	FT/SEC -644.3 -608.1 -608.1 -608.1 -608.1 -608.1 -608.1 -608.1 -753.6 -925.8 -943.3 -960.7 M-2 -524.5 -526.	FT/SEC 572-6 572-6 615-6 615-6 682-4 773-6 864-1 873-6 874-1 875-6 614-1 6-6334 7-192-6 7-765-6 699-1 7-765-6 699-1	FT/SEC 599.8 637.2 697.3 761.2 867.7 932.9 955.5 977.2 M*-2 M*-2 .7610 3.7463 2.8674 9294 9552 9454 9454
\$ SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.860 29.576 30.240 INCS 856R55 1.63 2.56 1.63 -74 -1.97 -2.87	IN 18.580 19.110 19.740 21.600 24.200 28.900 30.270 INCM DEGREE 7.13 6.81 5.96 3.63 4.96 3.63	FT/SEC 1011.0 1010-6 1994.7 883.0 941.7 883.0 778.1 728.4 DEV DEGREE 19.68 15.37 15.73 16.98 18.09 WCOR-1	775EC 610. 622. 635. 668. 656. 647. 601. 5514. 7URN DEGREE 49.84 43.47 40.44 35.15 33.26 33.99 34.56	7 607.49 4 669.2 7 701.1 6 696.1 2 701.1 6 696.1 2 586.7 7 57.0 6 596.1 7 62.5 7 62.5 7 62.5 7 63.4 7 63.4 7 63.6 7 63.6 7 63.6 7 63.6 7 63.6 7 63.6 7 63.6 7 63.6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	FT/SEC 608.7 603.6 667.9 655.6 667.9 600.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 2.1076 1.9484 1.2866 1.2856 1.2857 P02/	FT/SEC 808.1 781.2 735.6 628.0 537.5 433.6 431.3 433.7 D-FAC .5917 .5675 .4734 .4423 .4423 .4423 .4423	FT/SEC -44.5 8.8 47.0 16.2 27.5 16.4 12.2 16.4 0MEGA-B 7.1417 1598 1.1598 1.1598 1.0422 1.0561 1.0772	DEGREE 53.07 50.07	-4-20 -7-9 4-24 1-39 2-40 1-26 1-76 LOSS-P PROFILE -0335 -0417 -0189 -0189 -0218 -0218	DEGREE -21.24 -16.22 -16.24 -18.56 -29.96 -40.55 -42.88 -940 -940 -935 -985 -985 -989 -9792	DEGREE 4 46.62 44.97 1 45.53 1 42.97 1 45.53 1 45.7 1 45.7	FT/SEC 651.8 680.5 705.0 739.9 7198.0 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 886.5 876.5 999.1 1099.1 1104.0 1097.7 1099.3 EFF-P STATIC .8246 .7897 .7927 .8950 .9232 .9232 .8810 .8476 .8349	FT/SEC 236.1 120.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .8940 .8445 .7874 .6858 .6366	FT/SEC -644.3 -608.1 -590.2 -681.1 -753.4 -925.6 -943.3 -960.7 M-2 -5243.5 -5697 -5697 -5628 -6578 -528 -5578 -528 -5578	FT/SEC 572-1 592-1 615-1 682-1 773-1 864-1 3 931-1 3 951-1 5 951-1 6 601-1 6 601-1 6 601-1 6 601-1 6 791-1 6 601-1 6 601-1	FT/SEC 599.8 637.2 697.3 781.2 867.7 932.9 955.5 977.2 M-2 4.7610 3.7881 7463 2.8277 8277 8277 8278 9552 9552 9454 9434 SLANT-2
\$ SPAN 5 10 15 30 50 70 85 90 96 \$ SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.356 19.070 21.140 23.970 26.796 28.860 29.576 30.240 INCS 856R55 1.63 2.56 1.63 -74 -1.97 -2.87	IN 18.580 19.110 19.740 21.600 24.200 28.900 30.270 INCM DEGREE 7.13 6.81 5.96 3.63 4.96 3.63	778-1 778-1 778-1 778-1 778-1 778-1 778-1 778-1 778-1 778-1 748-7 19-68 15-37 13-17 14-30 15-98 18-09	775EC 610. 622. 635. 668. 656. 647. 601. 5514. 7URN DEGREE 49.84 43.47 40.44 35.15 33.26 33.99 34.56	7 607.49 4 669.2 7 701.16 5 696.1 2 611.8 5 696.1 2 611.8 5 70.0 6 611.8 6 611	FT/SEC 608.7 603.6 667.9 655.6 667.9 600.9 534.4 SOLIDTY 2.1076 2.1076 2.1076 2.1076 1.9484 1.2866 1.2856 1.2857 P02/	FT/SEC 808.1 781.2 735.6 628.0 537.5 433.6 431.3 433.7 D-FAC .5917 .5675 .4734 .4423 .4423 .4423 .4423	FT/SEC -44-5 -48-8 47-0 16-2 27-5 27-16-8 -7-1 12-2 16-4 0MEGA-B -0422 -0422 -0422 -0422 -0772 -0872	DEGREE 53.07 50.07	-4-20 -7-9 4-24 1-39 2-40 1-26 1-76 LOSS-P PROFILE -0335 -0417 -0189 -0189 -0218 -0218	DEGREE -21.24 -16.22 -16.24 -18.56 -29.96 -40.55 -42.88 -940 -940 -935 -985 -985 -989 -9792	DEGREE 4 46.62 44.97 1 45.53 5 48.97 4 57.02 4 57.02 4 59.26 6 60.92 0 0000 1 0000	FT/SEC 651.8 680.5 705.0 739.9 7198.0 816.0 805.1 800.5 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 886.5 876.5 999.1 1099.1 1104.0 1097.7 1099.3 EFF-P STATIC .8246 .7897 .7927 .8950 .9232 .9232 .8810 .8476 .8349	FT/SEC 236.1 120.3 -54.5 -235.9 -398.0 -523.0 -544.5 M-1 .9115 .8940 .8445 .7874 .6858 .6366	FT/SEC -644.3 -608.1 -590.2 -681.1 -753.4 -925.6 -943.3 -960.7 M-2 -5243.5 -5697 -5697 -5628 -6578 -528 -5578 -528 -5578	FT/SEC 572-1 592-1 615-1 682-1 773-1 864-1 3 931-1 3 951-1 5 951-1 6 601-1 6 601-1 6 601-1 6 601-1 6 791-1 6 601-1 6 601-1	FT/SEC 599.8 637.2 697.3 761.2 867.7 932.9 955.5 977.2 M*-2 M*-2 .7610 3.7463 2.8674 9294 9552 9454 9454

### Blade-Element and Overall Performance without Stator-Hub Slit Suction

ROTOR 100% of Design Speed DIA=1 DIA=2 V=1 V=2 V.=1 VM=2 VD=1 VD=2 B=1 B=2 B\*=1 B\*=2 V\*=1 V\*=2 VD\*=1 VD\*=2 U-1 U-2 IN FT/SEC FT % SPAN IN .00 54.12 35.84 -29.82 723.9 737.9 -423.9 366.9 423.9 517.9 .00 52.07 37.24 -24.55 752.7 722.2 -455.5 300.1 455.5 542.4 13-120 16-030 586-9 1092-1 586-9 640-1 .0 884.8 14.100 16.790 599.2 1068.1 599.2 656.4 .0 842.5 ·00 49.88 38.68 -18.36 784.0 701.4 -490.1 221.2 490.1 567.9 15-170 17-580 611-8 1031-9 611-8 664-7 .0 789.2 18.280 19.910 643.3 931.1 643.3 649.7 0 666.9 ·00 45·72 42·52 -2·01 873·4 652·3 -590·6 23·7 590·6 643·2 22-190 23-090 670-9 630-6 670-9 613-1 .0 560.3 .00 42.40 46.87 16.78 982.0 642.4 -716.9 -185.7 716.9 745.9 .0 473.7 25.880 26.260 683.7 760.9 683.7 590.7 .00 39.07 50.71 31.92 1080.1 697.4 -836.1 -368.7 836.1 848.4 28-450 28-610 685-2 703-1 685-2 545-0 .0 444.1 -00 39-19 53-29 41-39 1146-4 726-8 -919-1 -480-2 919-1 924-3 .00 41.14 54.15 45.07 1168.6 717.9 -947.2 -507.8 947.2 950.1 .00 43.20 54.95 48.36 1189.8 711.0 -974.0 -531.3 974.0 975.0 29.320 29.410 684.4 673.0 684.4 506.9 .0 442.3 30.150 30.180 683.3 648.0 683.3 472.4 .0 443.6 INCS INCM DEV TURN CAMBER SOLIDIY DEFAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P FFF-AD OMEGA-B M-1 M-2 M'-1 M'-2 SPAN DEGREE DEGREE DEGREE DEGREE TOTAL PROFILE POI TOTAL TOTAL SHOCK 1.76 6.89 65.66 70.83 2.4335 .2569 .2234 .0398 .0398 1.5262 .8801 .8728 .0000 .5412 1.0004 .6683 .6759 -5.16 10 -4.25 2.41 6.51 61.79 65.92 2.2862 .3065 .1234 •0245 .0245 1.5605 .9288 .9242 .0000 .5540 .9745 .6974 .6589 8.51 57.05 62.89 2.1575 .3555 .0707 .0156 1.5669 -3.61 2.69 .0156 .9549 .9519 .0000 .5663 .9370 .6369 .7272 -2.69 3.00 11.69 44.53 53.22 1.9051 .4618 .0330 .0086 1.5509 .9730 .9713 30 .0086 .00n0 .5965 .8347 .8105 .5847 -----76 3.23 12.25 33.09 39.11 1.6906 .5176 -0396 +0112 .0112 1.5265 .9610 .9586 .6238... 0000 •7355 •9135 -5668 3.64 11.85 18.79 27.00 1.5347 .5000 .0080 1.5071 .9551 .9525 -.56 0386 .0107 .0095 70 .6365 .6691 1.0063 .6131 -.04 3.64 11.44 11.90 19.69 1.4421 .5007 .0883 .0230 .0190 1.4712 .8911 .8851 .0151 .6379 .6139 1.0694 .6745 3.53 12.80 •1339 •0334 •0291 1•4466 •8333 •8245 •0171 •6371 •5849 1•0896 9.08 18.34 1 3 .5196 6.239 90 3.30 14.24... 6.59 17.48 1 2.24 .5367 ·1736 ·0415 ·0368 1·4278 ·7824 ·7713 ·0196 ·6360 ·5607 1·1083 ·6152 --07 MCOR-1 MCOR-1 MC/A-1 TG2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 PO1 % DEGREE DEGREE SOFT 7404 182-5- 41-15 1-1357 1-5110 92-258 92-77 5.0 6.0 86.05 95.02 STATOR OTA-1 DTA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 IN FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC 17-720 18-580 998-9 598-2 597-6 595-4 800-4 -52-8 53-25 -5-09 -20-87 47-63 639-7 883-9 227-9 -653-1 572-5 600-2 5.0 50.69 .46 -15.88 45.12 657.9 864.1 180.0 -612.3 592.8 617.4 18.350 19.110 998.8 610.1 632.7 609.5 772.8 4.18 -9.68 43.65 670.6 858.0 112.6 -592.3 616.1 637.7 1.67 4.53 45.91 691.9 944.7 -55.0 -678.6 682.9 697.8 2.49 18.72 49.35 730.3 993.4 -234.8 -753.7 774.4 761.8 19.070 19.740 983.6 622.5 660.4 620.8 728.7 45.4 47.8C 19.2 42.36 21.140 21.600 932.0 657.3 688.4 657.0 628.0 23.970 24.200 876.3 647.5 690.3 646.9 539.6 28.1 38.00 1.88 29.97 52.83 791.5 1063.4 -395.4 -847.3 865.5 868.4 26.790 26.880 830.7 642.6 684.9 642.2 470.1 21.0 34.46 1.40 37.09 56.43 817.0 1103.0 -492.5 -918.8 932.3 933.6 28.860 28.900 786.2 610.0 651.6 609.9 439.9 14.8 34.03 15.3 35.23 1.54 39.69 53.72 808.6 1101.1 -516.1 -940.9 955.3 956.3 1.47 41.94 60.51 799.5 1107.4 -534.3 -963.9 976.9 977.9 29.570 29.600 761.7 571.7 622.2 571.5 439.2 30.240 30.270 741.3 545.4 594.7 545.2 442.6 14.0 36.66 INCM DEV TURN CAMBER SOLIDITY D-FAC OMEGA-B LOSS-P LOSS-P POZ/ OMEGA-BEFF-AD FFF-P M-1 M-2 M'-1 M'+2 INCS MISPAN DEGREE DEGREE DEGREE DEGREE TOTAL PROFILE POI SHOCK TOTAL STATIC 7.29 11.44 58.34 62.54 2.1078 .5994 .1437 .0340 .0340 .9412 .0000 .0000 .8231 3.32 8994 5133 .5800 .7585 .0425 .9295 .0000 .0000 .7864 •5957 .7425 6.88 16.39 50.24 59.56 2.0305 .5744 ·1724 ·0425 .8981 •5242 6.11 19.61 43.62 57.05 1.9490 .5418 ·1624 ·0415 .0415 .9351 .0000 .0000 .7580 .8833 .5362 .6045 .7391 15 1.78 8349 .0189 .9756 .0000 .8947 30 -.17 4.63 15•**6**6 40.68 51.71 1.7550 . 4785 .0665 .0189 .0000 • 5696 -6204 .8187 13.24 44.75 1.5492 .4483 0418 0135 .0135 .9861 •0000 9242 7808 -5615 6503 .8614 -1.48 4.01 -0000 .0130 .9890 3.03 14.69 32.58 44.24 1.3870 .4208 .0362 .0130 .000G .0000 .9246 .7371 .5579 .7016 -3.08 70 •5278 ,9543 3.77 16.43 32.63 45.29 1.2867 .4340 · 0485 .0188 .0188 .9867 .0000 .0000 .8963 .6933 .7202 -2.73 •0793 •0316 .0316 .9795 .0000 .0000 .8448 .6688 • 4923 -7098 .9481 4.96 17.25 33.69 45.96 1.2554 .4709 -1.64 90 .0356 •9785 6.24 17.80 35.19 46.76 1.2271 .4997 ·0875 ·0356 •0000 •0000 +8342 .6478 • 4677 .6984 .9496

NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFE-AD EFE-P
RPM LBM/SEC LBM/SEC TO1 PO1 % %
SGFT

7404 182-5 41-15 1-1357 1-4754 86-631 87-41

11.0 12.0 90.00 90.00

STA-1 STA-2 SLANT-1 SLANT-2

DEGREE DEGREE

	DIA-1	DIA-2	V-1	V-2	VM-1	V <b>M-</b> 2	V0-1	V0-2	B=1	8=2	81-1	B • -2	v +-1	V•-2	V0*-1	V0+-2	U=1	U ·2
% SPAN	IN	IN			ET/EEC	FT/SEC I		T/SEC (			EGOFE !	DEGREE I	TYSEC F				FT/SEC F	T/SEC_
5		16-030		1075.1			•0	876.0	•00	54.56		-30.p1			-422.2			
10 15		16.790		1048.7			+0	835.5	•00	52.62		=24.97	745.3		-453.7			540.3
15 30		17.580 19.910		1012.5 916.0			•0	779.9 666.5	•00	50.37 46.68	42.80	-18.32 -2.29	776.4 865.4		-488.1 -588.2			565.7 640.7
50		23.090				597.5	•ú •0	563.1	.00	43.28	47.12		974.1		-714.D			743.0
70			676.4				+0	485.9		40.04	50.90		1073.0		-832.8		832.8	85.0
85	28.450	28.610	679.1	707.0		545.1	10	450.2	.00	39.57	53.43	40.BO	1139.9		-915.5			920.6
90		29.410					• 0	448.8	•00	41.27	54.27		1162.2		-943.5			946.4
95	30-1-0	30 • 180	677.9	655.7	677.9	477.5	• 0	449.3	•00	43.25	55.06	47,53	1183.6	707.4	-970.2	•521.9	970.2	971.2
	INCS	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC	OMEGA-B	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AD (	MEGA-B	M-1	M-2	H*-1	M*-2
% SPAN			DEBREE	DEGREE I	DEGREE.				_TOTAL	PROFILE	POL	TOTAL	TOTAL SI					
5	-4.91	2.00				2 • 4335					1.5251			.0000	.5338			.6582
10	-4,00	2.67				2.2863	.3278	1241	•0246		1.5526	•9289	.9244	•0000	.5461			.6366
15	-3,35 -2,41	2.95				2-1576	.3727	. 1674	•0148		1.5583	•9571 •9722	.9544 .97 <sub>0</sub> 4	•0000	.5582 .5876	.9174 .8195		.6170 .5643
30 50	-1.51	3.28 3.49				1.69053	•4816 •5317		•0091		1.5475		9670	•0000	6150			.5533
70	-,38	3.43				1.5348	-5:34	-0293	-0.81		1-5196	-9661	9640	-0000	6291	6631	9976	.5983
85	.09		10.83	12.63		1.4422		645	0169	.0131	1.4963	.9215	9170	-0147	6318		1.0617	.6287
90	.13	3.65	11.93	10.36	18.33	1.4148	.5222	1068	.0271	.0229	1.4758	•8697	8624	-8166	.6314		1.0823	.6207
95	.04	3.41	13.33	7,52	17.48	1.3891	•5390	.1471	• 0357		1.4565		.8097	.0189	.6306	.5675	1.1015	.6122
		NCOR-1	WC.3D-1	WC /4_4	T00/	0007	eeE	55D										
			WCUR-1	,		P02/	EFF-AD	- <del> </del>							STAPL S		LANT-1 S Ebree d	
		<del></del>		SOFT	101	F2		<del>- 18</del>									COKEE	EGHEE
		7376	181.16		1.1359	1.5203	93.550	94.02							5.0	6.U	86.05	95.02
STA	TOR					-										-		
~ -11																		
	4																_	_
% SPAN		DIA-2	V=1	V-2	VM-1	VM-2	V0-1	V0=2	BP1	B=2	81-1	B1-2	V*+1	¥1-2	V0'-1	V0 *=2	U+1 E= 40EC 1	U=2
% SPAN	IN	IN.	FT/SEC	FT/SEC	FT/SEC	FT/SEC_	ETASEC	FT/cEC_	DEGREE I	DEGREE I	DEGREE	DEGREE	FT/SEC	T/SEC	FT/SEC	FTZSEC	FT/SEC !	FT/SEC_
	IN 17.720	DIA+2 IN 18.580	FT/SEC 980.9	FT/SEC 575.0	578.2	FT/SEC 571.9	792.3	FT/cEC_ -55.7	DEGREE 1 53.88	DEGREE 1 +5.58	D <b>EĞ</b> REĒ •21∙01	DEGREE 48.81	FT/SEC   619.6	77/SEC 868.5	FT/SEC 222-1	FT/SEC -653.0	570.2	597.9
5	17.720 18.350 19.070	18.580 19.110 19.740	FT/SEC 980.9 977.2 961.2	575.0 582.7 593.2	578.2 578.2 605.4 636.4	FT/SEC 571.9 582.1	792.3 767.0	-55.7 -1.6	DEGREE 1 53.88 51.71	DEGREE 1 +5.58	PEGREE *21.01 ~16.26	0EGREE 48.81 46.63	619.6 630.8	FT/SEC 868.5 848.0 837.1	FT/SEC 222-1 176-5 106-5	FT/SEC -653.0 -615.5 -592.2	570.2 570.5 590.5	FT/SEC_
5 10 15 30	17.720 18.359 19.070 21.140	18.580 19.110 19.740 21.600	FT/SEC 980.9 977.2 961.2 913.1	575.0 582.7 593.2 634.7	578.2 578.2 605.4 636.4 663.0	571.9 582.1 591.6 634.4	792.3 767.0 720.2 627.6	-55.7 -1.6 43.0 20.2	55.88 51.71 48.53 43.41	DEGREE'   #5.58 #.17 4.15 1.83	21.01 -21.01 -16.26 -9.52 4.50	0EGREE 48.81 46.63 45.03 46.75	619.6 630.8 645.8 666.4	FT/SEC 868.5 848.0 837.1 926.3	FT/SEC 222-1 176-5 106-5 -52-6	FT/SEC -653.0 -615.3 -592.2 -674.0	570.2 570.5 590.5 613.6 680.3	597.5 597.5 614.5 635.2 695.1
5 10 15 30 50	17.720 18.359 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	FT/SEC 980.9 977.2 961.2 913.1 853.8	575.0 582.7 593.2 634.7 633.2	578.2 578.2 605.4 636.4 663.0 672.2	571.9 582.1 591.6 634.4 632.8	792.3 767.0 720.2 627.6 542.3	FT/SEC -55.7 -1.6 43.0 20.2 22.5	DEGREE   53.88 51.71 48.53 43.81 38.88	#5.58 #5.58 17 4.15 1.83 2.03	21.01 -16.26 -9.52 4.50 18.75	0EGREE 48.81 46.63 45.03 46.75 50.07	FT/SEC 619.6 630.8 645.8 666.4 711.2	868.5 848.0 837.1 926.3 986.2	FT/SEC 222-1 176-5 106-5 -52-6 -229-0	FT/SEC -653.6 -615.5 -592.2 -674.6 -756.3	570.2 570.5 590.5 613.6 680.3 771.3	597.9 597.9 614.9 635.2 695.1 778.7
5 10 15 30 50 70	17.720 18.359 19.070 21.140 23.970 26.790	18.58( 19.110 19.740 21.600 24.200	FT/SEC 980.9 977.2 961.2 913.1 853.8 823.4	575.0 582.7 593.2 634.7 633.2	578.2 578.2 605.4 636.4 643.0 672.2	571.9 582.1 591.6 634.4 632.8	792.3 767.0 720.2 627.6 542.3	F725EC -55.7 -1.6 43.0 20.2 22.5 -7.6	0EGREE   53.58 51.71 48.53 43.41 38.88	DEGREE   #5.58 #.17 4.15 1.83 2.03	21.01 -16.26 -9.52 4.50 18.75	06066 48.81 46.63 45.03 46.75 50.07	FT/SEC 619.6 630.8 645.8 666.4 711.2 775.3	FT/SEC 868.5 848.0 837.1 926.3 986.2	FT/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-9	FT/SEC -653. -615. -592.2 -674.6 -756.3	570-2 570-2 570-5 613-6 660-3 771-3	597.9 597.9 614.9 635.2 695.1 778.7
5 10 15 30 50 70 85	17.720 18.359 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	FT/SEC 980.9 977.2 961.2 913.1 853.8 823.4	575.0 582.7 593.2 634.7 633.2 632.4	578.2 578.2 605.4 636.4 663.0 672.2 671.7 650.6	57/sEC 571.9 582.1 591.6 634.4 632.8 632.2 614.1	792.3 767.0 720.2 627.6 542.3 476.2	F725EC -55.7 -1.6 43.0 20.2 22.5 -17.6 16.8	0EGREE   53.58 51.71 48.53 43.41 38.88 35.33 34.43	#5.58 17 4.15 1.83 2.03 1.60	21.01 -21.026 -16.26 -9.52 4.50 18.75 29.84 36.58	DEGREE 48.81 46.63 45.03 46.75 50.07 53.26	FT/SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3	77/SEC 868.5 848.0 837.1 926.3 986.2 1057.3	FT/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-9 -482-7	FT/SEC -653. -653. -615. -592. -674. -756.3 -847.	FT/SEC 570-2 570-5 613-6 600-3 771-3 862-1 928-7	597.9 614.9 635.2 695.1 778.7 865.0 930.0
5 10 15 30 50 70	17.720 18.359 19.070 21.140 23.970 26.799 28.860 29.570	18.58( 19.110 19.740 21.600 24.200	FT/SEC 980.9 977.2 961.2 913.1 853.8 823.4 788.8 768.8	575.0 582.7 593.2 634.7 633.2 632.4 614.4 579.8	578.2 578.2 605.4 636.4 663.0 672.2 671.7 650.6	571.9 582.1 591.6 634.4 632.8 632.2 614.1 579.6	792.3 767.0 720.2 627.6 542.3 476.2 445.9	FT/SEC -55.7 -1.6 43.0 20.2 22.5 -17.6 16.8	0F6REE   53.58 51.71 48.53 43.41 38.88 35.33 34.43	DEGREE   1	*21.01 *16.26 *9.52 4.50 18.75 29.84 36.58	0E0gEE 48.81 46.63 45.03 46.75 50.07 53.26 56.08 58.27	FT/SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3	77/SEC 868.5 848.0 837.1 925.3 986.2 1057.3 1100.6	FT/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-9 -482-7 -505-7	FT/SEC -653. -616. -592. -674. -756. -847. -913.	FT/SEC 570-2 570-5 613-6 600-3 771-3 862-1 928-7 951-5	597.9 614.9 635.2 695.1 778.7 865.0 930.0 952.5
5 10 15 30 50 70 85 90	17.720 18.359 19.070 21.140 23.970 26.799 28.860 29.570 30.240	18.58( 19.11( 19.74( 21.60( 24.20( 26.88( 28.90( 29.60( 30.27(	FT/SEC 980.9 977.2 961.2 913.1 863.8 863.8 788.8 768.3 748.0	FT/SEC 575.0 582.7 593.2 634.7 633.2 632.4 614.4 579.8	578.2 578.2 605.4 636.4 643.0 672.2 671.7 650.6 625.6	571.9 582.1 591.6 634.4 632.8 614.1 579.6	792.3 767.0 720.2 627.6 542.3 476.2 445.9 448.3	FT/SEC -55.7 -1.6 43.0 20.2 22.5 17.6 15.8	0568EE 53.88 51.71 48.53 43.41 38.88 35.33 34.43 35.48	DEGREE 1 #5.58 #.17 #.15 1.83 2.03 1.60 1.57 1.39	0E6gEE *21.01 *16.26 *9.52 4.50 18.75 29.84 36.58 38.96 41.23	DEGREE 48.81 46.63 45.03 46.75 50.07 53.26 56.08 58.27 60.11	619.6 619.6 630.8 645.8 666.4 711.2 775.3 810.3 804.6	FT/SEC 868.5 848.0 837.1 926.3 986.2 1057.3 1100.6 1102.3	FT/SEC 222-1 176-5 106-5 -52-6 -285-9 -482-7 -524-8	FT/SEC -653.6 -615.5 -592.6 -674.6 -786.5 -847.6 -913.6 -960.6	FT/SEC 570-2 570-5 613-6 613-6 613-6 771-3 862-1 928-7 951-5 973-1	597.5 597.5 614.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0
5 10 15 30 50 70 85 90	17.720 18.359 19.070 21.140 23.970 25.799 28.860 29.570 30.240	18.586 19.110 19.740 21.600 24.200 26.886 28.900 29.600 30.270	FT/SEC. 980.9 977.2 961.2 913.1 853.8 788.8 768.3 748.0 DEV	575.0 582.7 593.2 633.2 633.2 632.4 614.4 579.8 552.4	578.2 578.2 605.4 636.4 643.0 672.2 671.7 650.6 598.8 CAMBER	571.9 582.1 591.6 634.4 632.8 614.1 579.6	792.3 767.0 720.2 627.6 542.3 476.2 445.9 448.3	FT/SEC -55.7 -1.6 43.0 20.2 22.5 17.6 15.8	53.88 51.71 48.53 43.48 35.33 34.43 35.48 36.82	DEGREE 1 #5.58 #.17 4.15 1.83 2.03 1.60 1.57 1.48 1.39 LOSS-F	21.01 ~16.26 ~9.52 4.50 18.75 29.84 36.58 38.96 41.23	DEGREE 48.81 46.63 45.03 46.75 50.07 53.26 56.08 58.27 60.11	FT/SEC 619-6 630-8 645-8 666-4 711-2 775-3 810-3 804-6 796-2	FT/SEC 868.5 848.0 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1	FT/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-9 -482-7 -505-7	FT/SEC -653. -616. -592. -674. -756. -847. -913.	FT/SEC 570-2 570-5 613-6 600-3 771-3 862-1 928-7 951-5	597.9 614.9 635.2 695.1 778.7 865.0 930.0 952.5
5 10 15 30 50 70 85 90	17.720 18.359 19.070 21.149 23.970 28.860 29.570 30.240 INCS DEGREE	18.58( 19.110 21.600 24.200 26.88( 28.90( 29.600 30.270 INCM DEGREE	FT/SEC 980.9 977.2 961.2 913.1 853.8 788.8 788.8 788.8 DEV DEGREE	FT/SEC 575.0 582.7 593.2 633.2 633.2 632.4 579.8 552.4 TURN DEGREE	578.2 578.2 605.4 636.4 623.0 671.7 650.6 598.8 CAMBER DEGREE	571.9 571.9 591.6 634.4 632.8 614.1 579.6 552.2	792.3 767.0 727.6 627.6 542.3 476.2 445.9 445.8 448.3	55.7 -1.6 43.0 22.5 17.6 16.8 15.0 13.4	DEGREE 53.88 51.71 48.53 43.88 35.33 34.43 35.48 36.82 LOSS-P	DEGREE 1 -5.58 -17 4.15 1.83 2.03 1.57 1.48 1.39 LOSS-F	PO2/ P01/S	DEGREE 48.81 46.43 46.03 46.07 53.26 56.08 58.27 60.11 OME&A-8	FT.SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2	FT/SEC 868.5 848.0 837.1 926.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC	FT/SEC 22-1 176-5 106-6 -52-6 -229-0 -385-9 -482-7 -505-7 -524-8 M-1	FT/SEC -653.6 -615.9 -592.6 -7786.3 -847.1 -913.0 -937.0 -940.0	FT/SEC 5 570-2 5 590-5 6 13-6 6 13-6 6 13-6 771-3 3 771-3 3 862-1 1 928-7 5 951-5 7 973-1	597.9 597.9 618.9 635.2 695.1 778.7 865.0 930.0 952.5 974.0
5 10 15 30 50 70 85 90 95	IN 17.720 18.359 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	18.58( 19.11( 21.60( 24.20( 26.88( 28.90( 29.60( 30.27( 1NCM DEGREE 8.03	FT/SEC 980.9 970.2 971.2 913.1 853.8 768.8 768.3 768.3 DEV DEGREE 10.91	575.0 575.0 582.7 593.2 634.7 633.2 634.4 579.8 552.4 TURN DEGREE 59.45	FT/SEC 578.2 605.4 636.4 623.0 672.2 671.7 620.6 598.8 CAMBER DEGREE 62.54	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY	792.3 767.0 720.2 627.6 542.3 476.2 445.9 448.3 D-FAC	FT/SEC -55.7 -1.6 43.0 20.2 22.5 17.6 16.8 15.0 13.4 OMEGA-B	53.88 51.53 43.41 38.88 35.33 34.48 36.82 LOSS-P TOTAL .0355	#5.58 #5.58 #0.17 4.15 1.83 2.03 1.60 1.57 1.48 1.39 LOSS#F	21.01 ~16.26 +9.52 4.50 18.75 29.84 36.58 38.96 41.23 P02/ P01/S .9402	DEGREE 48.81 46.63 45.03 46.75 50.07 53.26 56.08 56.01 0ME&A-B HOCK	FT/SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3 810.3 796.2 EFF-AD TOTAL	FT/SEC 868.5 848.0 837.1 926.3 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166	FT/SEC 222-1 176-5 196-5 -52-6 -229-0 -385-2 -482-7 -505-7 -524-8 M-1	FT/SEC -653.6 -615.6 -592.6 -756.3 -947.6 -937.6 -937.6 -960.1	FT/SEC 5 570-2 5 590-3 6 60-3 771-3 862-1 1 928-7 9 951-5 7 973-1 H'=1	597.5 597.5 614.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2
5 10 15 30 50 70 85 90 95	17.720 18.359 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4,06	18.58( 19.11( 19.74( 21.60( 24.20( 24.20( 26.88( 28.90( 30.27( 1NCM DEGREE 7.86	FT/SEC 980.9 977.2 913.1 863.8 823.4 768.8 768.3 768.3 768.3 DEV DEGREE 5 10.91 15.76	575.0 582.7 593.2 633.2 633.2 634.4 579.8 579.8 TURN DEGREE 59.45	FT/SEC 578.2 6056.4 663.0 672.2 671.7 650.6 625.6 598.8 CAMBER DEGREE 62.54 59.54	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY	792.3 767.0 720.2 627.6 542.3 476.2 445.9 445.8 448.3 D-FAC	55.7 -1.6 43.0 20.2 22.5 17.6 16.8 15.0 0MEGA-B	53.88 51.53 43.41 38.88 35.33 34.43 35.48 10SS-P TOTAL .0437	DEGREE   #5.58	#21.01 *16.26 *9.52 18.75 29.84 36.58 41.23 P02/ P01/S .9299	DEGREE 48.81 46.63 45.03 46.75 50.07 53.26 56.08 58.27 60.11 OMEBA-8 HOCK	FT.SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 EFF-AD TOTAL	FT/SEC 868.5 848.0 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .7845	FT/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-9 -482-7 -524-8 M-1 .8805 .8763	FT/SEC -653.6 -615.9 -592.6 -756.5 -913.6 -937.6 -937.6 M-2	FTZSEC 570-2 570-2 590-3 613-6 600-3 771-3 1 928-7 973-1 M'=1 8 .5588	597.5 597.5 614.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15	IN 17.720 18.359 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 4.06 3.61 2.52	IN 18.58 19.11 21.50 21.50 22.	FT/SEC. 980.9 980.9 961.2 913.1 853.8 0 768.8 768.8 768.8 176	575.0 575.0 582.7 593.2 634.7 633.2 614.4 579.8 552.4 TURN DEGREE 59.45 51.88 44.37 41.59	FT/SEC 578.2 605.4 636.4 663.0 672.2 650.6 598.8 CAMBER DEGREE 59.54	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY	792.3 767.0 720.2 627.6 542.3 445.8 445.8 448.3 D-FAC	FT/SEC -55.7 -1.6 43.0 20.2 22.5 -17.8 15.0 13.4 OMEGA-B .1503 .1503	53.88 51.81 48.53 43.41 38.88 35.48 35.48 36.82 LOSS-P TOTAL .0355 .0433	#5.58 #5.58 #0.17 4.15 1.83 2.03 1.60 1.57 1.48 1.39 LOSS-F PROFILE .0453 .0437	21-01 -16-26 -9-52 4-50 18-75 29-84 36-58 38-96 41-23 P02/ P01 S -9299 -9347	DEGREE 48.81 46.83 46.03 46.75 50.07 53.26 56.08 58.27 60.11 OMEBA-8 HOCK .0000 .8000	FT/SEC 619.6 630.8 645.8 666.4 711.2 775.3 810.3 810.3 796.2 EFF-AD TOTAL	FT/SEC 868.5 848.0 837.1 926.3 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166	F1/SEC 222-1 176-5 106-5 -52-6 -229-0 -385-7 -505-7 -524-8 M-1 .8805 .8763 .8165	FT/SEC -653. -653. -674. -592. -674. -736. -913. -937. -960. M-2 .492. .492. .5499. .5499.	FTZSEC 570-2 570-2 590-3 613-6 600-3 771-3 1 928-7 973-1 M'=1 8 .5588	597.5 597.5 614.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50	IN 17.720 18.359 19.070 21.149 23.970 28.860 29.570 30.249 INCS DEGREE 4.06 3.61 2.529158	IN 18.586 19.740 21.650 24.200 26.886 28.900 30.270 INCM DEGREE 8.03 7.86 6.85 5.71 4.99	FT/SEC 980.9 977.2 961.2 913.1 853.8 788.8 768.3 748.0 DEV DEGREE 5 10.91 5 15.76 15.76 12.76	FT SEC 575-0 575-0 582-2 634-7 633-2 614-4 579-8 552-4 TURN DEGREE 59-45 51-88 44-37 36-85	FT/SEC 2 578-2 636-9 623-0 672-7 650-6 598-8 CAMBER 59-54 59-54 59-54 51-71 44-71	571.9 582.1 591.6 632.8 632.8 614.1 579.6 552.2 SOLIDTY 2.1080 2.0309 1.7557 1.5496	792.3 767.0 767.6 547.6 542.3 445.9 445.8 448.3 D-FAC .5934 .5934 .4920 .4600	FT2SEC -55.7 -13.6 43.6 20.2 27.5 16.8 15.0 13.4 0MEGA-B .1773 .1595 .0709	53.88 51.53 48.53 43.41 38.88 35.43 35.48 36.82 LOSS-P TOTAL .0437 .0437 .0437	DEGREE 1 #5.58 #0.17 4.15 1.83 2.03 1.57 1.48 1.39 LOSS-F PROFILE .0355 .0433 .0202 .0144	PESREF -21.01 -16.52 4.50 18.75 29.84 41.23 PO2/ PO1/ PO1/ 94.02 92.92 93.47 97.85 98.58	DEGREE 48.81 46.03 45.03 46.75 50.07 56.08 58.27 60.11 OMERA-8 HOCK .0000 .0000 .0000	FT25C 619.6 630.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AP 0000 0000 0000	FTYSEC. 868.5 848.0 937.1 926.3 1057.3 1100.6 1102.3 1108.1 EFF-IP STATIC .8892 .8929 .9196	F1/SEC 222-15 176-5 -52-6 -229-6 -239-9 -482-7 -505-7 -524-8 M-1 .8805 .8763 .8165 .7686	FT/SEC -653. -615. -615. -674. -786. -913. -937. -960. M-2 .492. .5100. .540.	FTZSEC 570-2 570-2 590-5 613-6 670-3 771-3 786-1 928-7 973-1 M'=1 8 .5588 .5700 .5958 .5958 .5958 .5958	FT/SEC 597.5 615.2 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2 .7445 .7275 .7198 .6012 .8540
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.149 25.970 28.860 29.570 30.240 INCS DEGREE 4.06 3.52 .93 -2.52	IN 18.586 19.119.740 21.600 24.200 28.900 29.600 30.270 INCH DEGREE 6.85 5.71	FT/SEC 980.9 977.2 961.2 913.1 823.8 1788.8 788.8 1788	FT/SEC 575.0 583.2 583.2 634.7 633.2 634.4 579.8 552.4 TURN DEGREE 51.88 51.88 31.89	FT/SEC 578-2 605-4 605-4 605-6 672-2 650-6 598-8 CAMBER DEGREE 59-54 51-71 48-22	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY 2.1080 2.0369 1.9497 1.7557 1.55496	FT.SEC 792.3 767.0 720.2 627.6 542.3 445.9 445.9 445.8 448.3 D-FAC .5599 .4920 .4322	FT/SEC -55.7 -1.6 43.0 20.2 22.5 -16.8 15.0 13.4 0MEGA-B .1503 -1595 -0709 -0498	53.88 51.81 48.53 43.41 38.88 34.43 35.48 36.82 LOSS-P TOTAL .0355 .0433 .0202 .0144	DEGREE 1 #5.58 17 4.15 1.83 2.03 1.57 1.48 1.39 LOSS-P PROFILE 0355 .0433 .0202 .0144	PEÉREE *21.01 *16.52 *4.50 18.75 29.84 36.58 36.58 41.23 PO2./ PO1 S. *92.99 *93.47 *97.48 *98.81	DEGREE 48.81 46.83 45.03 46.75 50.07 53.26 58.27 60.11 OME&A-8 HOCK .0000 .0000 .0000 .0000	FT25C 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC. 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7824 .8892 .9187	FT/SEC 222-1 176-5 106-5 -52-6 -229-9 -482-7 -505-7 -524-8 M-1 .8805 .8763 .8616 .8165 .7297	FTZSEC -653-1 -615-2 -674-1 -592-2 -674-1 -913-2 -913-2 -913-2 -949-2 -499-2 -549-2	FTZSEC 570-2 570-2 513-6 613-6 640-3 771-3 7928-7 9951-5 973-1 M'=1 8 .5588 9 .5908 1 .5908 3 .6318 6318 6858	FT/SEC 597.5 614.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2 .7445 .7275 .7198 .8540 .9165
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.149 28.869 29.570 30.240 INCS DEGREE 4.06 3.61 3.52 -2.52 -2.53	IN 18.586 19.112 19.74 21.600 24.20 28.90 28.90 29.60 27.00 F.	FT/SEC 980-9 980-9 961-2 961-2 93-1 853-8 8788-8 768-3 768-3 768-3 10-58 11-58 11-76 11-76 11-76 11-76 11-76 11-76 11-76 11-76 11-76 11-76 11-76 11-76	575.0 575.0 582.7 593.2 634.7 633.2 614.4 579.8 579.8 579.8 44.37 41.59 33.73 32.86	FT/SEC 2578-25 6056-4 6056-6 6	571.9 582.9 582.9 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY 2.10809 1.9497 1.7557 1.5496 1.2867	FT.SEC 792.3 767.0 720.2 627.6 542.3 445.8 445.8 448.3 D-FAC .5146 .5599 .4920 .4602	FT/SEC -55.7 -1.6 43.0 20.2 22.5 -16.8 15.0 13.4 0MEGA-B .1503 .1695 .0448 .0448	53.88 51.81 48.53 43.41 38.88 35.48 35.48 36.82 LOSS-P TOTAL .0355 .0433 .0202 .0144 .0173	DEGREE 1 #5.58 #5.58 #5.183 2.03 1.60 1.57 1.48 1.39 LOSS-F PROFILE .0455 .0455 .0456 .0144 .0173	POZ/ POZ/ POZ/ POZ/ POZ/ POZ/ POZ/ POZ/	DEGREE 48.81 46.83 45.03 46.75 50.07 53.26 56.08 58.27 60.11 OMEBA-8 HOCK .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT25C 619.6 630.8 665.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AP TOTAL .0000 .0000 .0000 .0000	FT/SEC. 868.5 848.9 837.1 926.3 986.2 1057.3 1102.3 1102.3 1108.1 EFF-P STATIC .0166 .7842 .8892 .9196 .9196 .9197	F1/SEC 222-1 176-5 106-5 -52-6 -229-0 -482-7 -505-7 -524-8 M-1 .8805 .8416 .8165 .7696	FT/SEC -653-1 -616-3 -592-2 -674-6 -756-3 -913-1 -913-1 -937-1 -949-2 -492-1 -549-1	FTZSEC 570-2 570-2 590-3 613-6 600-3 771-3 8-6-7 928-7 973-1 H'=1 8 .5588 .5700 .5958 .5958 .5958 .5958 .5958 .5958 .5958	FT/SEC 597.5 614.5 635.2 695.1 774.7 865.0 952.5 974.0 M*-2 .7445 .7275 .7198 .8540 .9520
5 10 15 30 50 70 85 90 95 <b>%.SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.140 23.770 28.860 29.570 30.25 INCE ERREF -2.53 -2.20 -2.33 -1.40	18.586 19.740 21.600 24.200 24.200 28.900 29.600 30.270 FERRE 8.07 7.86 6.85 4.91	FT/SEC 980.9 980.9 961.2 913.1 853.8 0768.3 768.3 768.3 15.76 15.76 15.76 11.89 11.20 11.20 11.20	575.0 575.0 582.7 593.2 634.7 633.2 614.4 579.8 579.8 552.4 TURN DEGREE 59.45 51.88 44.37 41.59 36.85 33.286	FT/SEC 2 578-2 636-9 623-0 672-7 650-6 625-8 CAMBREE 59-54 57-71 44-27 45-96	571.9 582.1 591.6 632.8 632.8 614.1 579.6 552.2 50LIDTY 2.1080 2.0309 1.9497 1.7557 1.5496 1.2554	792.3 762.3 767.6 547.6 542.3 445.9 445.8 445.8 445.8 445.9 445.9 445.9 453.9 453.9 4600 4323 4685	FT/SEC -51.6 -55.6 -43.0 20.2 22.5 -16.8 -15.9 -17.3 -17.3 -16.95 -07.0 -04.8 -03.94 -04.8 -04.77	53.88 51.78 48.53 48.53 43.41 38.88 35.48 36.82 LOSS-P TOTAL .0355 .0433 .0202 .0144 .0173	DESEE   105 - 58	21-01 -16-52 4-50 18-75 29-18-75 36-58 36-58 36-58 36-58 91-23 P02/ P01 S -9402 -929 -9347 -9748 -9855 -9817 -9796	DEGREE 48.81 46.83 46.63 46.75 50.07 58.27 60.11 OME&A-8 HOCK .0000 .0000 .0000 .0000 .0000 .0000	FT.SEC 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7843 .8892 .9196 .9187 .8470	F1/SEC 222-1 176-5 176-5 176-5 176-5 176-5 176-5 176-5 176-6	FT/SEC -6153. -6153. -6152. -674.6 -758.3 -917. -937. -960. M-2 .4926 .549. .548. .548. .548. .548. .548. .548.	FT/SEC 570-2 570-2 590-3 613-6 680-3 771-3 862-1 728-7 973-1 M'=1 8 .5588 .5709 .5958 .5958 .6558 .7151 .7066	597.5 597.5 635.2 695.1 778.7 865.0 930.0 952.5 974.0 M*-2 .7445 .7198 .8012 .8540 .9520 .9492
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.149 28.869 29.570 30.240 INCS DEGREE 4.06 3.61 3.52 -2.52 -2.53	18.586 19.740 21.600 24.200 24.200 28.900 29.600 30.270 FERRE 8.07 7.86 6.85 4.91	FT/SEC 980.9 980.9 961.2 913.1 853.8 768.3 768.3 768.3 15.76 15.76 15.76 12.76 11.89 76.60 7	575.0 575.0 582.7 593.2 634.7 633.2 614.4 579.8 579.8 552.4 TURN DEGREE 59.45 51.88 44.37 41.59 36.85 33.286	FT/SEC 2 578-2 636-9 623-0 672-7 650-6 625-8 CAMBREE 59-54 57-71 44-27 45-96	571.9 582.9 582.9 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY 2.10809 1.9497 1.7557 1.5496 1.2867	792.3 762.3 767.6 547.6 542.3 445.9 445.8 445.8 445.8 445.9 445.9 445.9 453.9 453.9 4600 4323 4685	FT/SEC -51.6 -55.6 -43.0 20.2 22.5 -16.8 -15.9 -17.3 -17.3 -16.95 -07.0 -04.8 -03.94 -04.8 -04.77	53.88 51.78 48.53 48.53 43.41 38.88 35.48 36.82 LOSS-P TOTAL .0355 .0433 .0202 .0144 .0173	DESEE   105 - 58	21-01 -16-52 4-50 18-75 29-18-75 36-58 36-58 36-58 36-58 91-23 P02/ P01 S -9402 -929 -9347 -9748 -9855 -9817 -9796	DEGREE 48.81 46.83 46.63 46.75 50.07 58.27 60.11 OME&A-8 HOCK .0000 .0000 .0000 .0000 .0000 .0000	FT.SEC 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7843 .8892 .9196 .9187 .8470	F1/SEC 222-1 176-5 176-5 176-5 176-5 176-5 176-5 176-5 176-6	FT/SEC -6153. -6153. -6152. -674.6 -758.3 -917. -937. -960. M-2 .4926 .549. .548. .548. .548. .548. .548. .548.	FT/SEC 570-2 570-2 590-3 613-6 680-3 771-3 862-1 728-7 973-1 M'=1 8 .5588 .5709 .5958 .5958 .6558 .7151 .7066	FT/SEC 597.5 614.5 635.2 695.1 774.7 865.0 952.5 974.0 M*-2 .7445 .7275 .7198 .8540 .9520
5 10 15 30 50 70 85 90 95 <b>%.SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.140 23.770 28.860 29.570 30.25 INCE ERREF -2.53 -2.20 -2.33 -1.40	IN 18.586 19.11610 21.600 24.200 24.200 26.889 28.900 29.600 INCM DEGREE 6.85 5.91 4.11 5.220 6.81	FT/SEC 980.9 980.9 961.2 913.1 853.8 0768.3 768.3 768.3 15.76 15.76 15.76 11.89 11.20 11.20 11.20	FT/SEC 575.0 575.0 593.2 634.7 633.2 634.4 579.8 552.4 TURN DEGREE 51.88 44.37 41.59 31.73 32.86 34.69 35.43	FT/SEC 2 578-2 6056-4 603-0 672-2 650-6 625-6 625-8 CAMBER DEGREE 57-04 45-27 45-27 45-27 45-27	571.9 582.1 591.6 632.8 632.8 614.1 579.6 552.2 50LIDTY 2.1080 2.0309 1.9497 1.7557 1.5496 1.2554	792.3 762.3 767.6 547.6 542.3 445.9 445.8 445.8 445.8 445.9 445.9 445.9 453.9 453.9 4600 4323 4685	FT2SEC -55.7 -1.6 43.0 20.2 22.5 16.8 15.0 13.4 0MEGA-B .1503 .1695 .0709 .0498 .0446 .0777 .0882	53.88 51.88 54.53 43.41 38.88 34.43 35.48 36.82 LOSS-P TOTAL .0355 .0437 .0144 .0173 .0144 .0173 .0359	DEGREE 1 #5.58 #0.17 4.15 1.83 2.03 1.57 1.48 1.39 LOSS-F -PROFILE -0355 0437 .0433 .0202 .0144 .0173 .0359	DESREF *21.01 *16.26 *9.52 *4.50 18.75 29.84 *36.58 36.58 *41.23 *P02' *P01' *9402 *9299 *9347 *9748 *9853 *9881 *9778	DEGREE  48.81  46.83  45.03  46.75  50.07  56.08  58.27  60.11  OMERA-8  HOCK  .0000  .0000  .0000  .0000  .0000	FT25C 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AP TOTAL .0000 .0000 .0000 .0000 .0000	FT/SEC. 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7824 .8892 .9167 .9047 .8319	FT/SEC 222-1 176-5 106-5 -52-6 -229-9 -482-7 -505-7 -524-8 M-1 .8805 .8763 .8616 .8165 .7297 .6956 .6749	FT/SEC -653. -615. -616. -592. -674. -927. -913. -913. -913. -937. -960. M-2 .499. .54	FT/SEC 570-2 570-2 590-3 613-6 680-3 771-3 862-1 728-7 973-1 M'=1 8 .5588 .5709 .5958 .5958 .6558 .7151 .7066	FT/SEC 597.5 614.5 635.2 695.1 774.7 865.0 930.0 952.5 974.0 M*-2 .7445 .7275 .7198 .8012 .8540 .9520 .9492 .9502
5 10 15 30 50 70 85 90 95 <b>%.SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.140 23.770 28.860 29.570 30.25 INCE ERREF -2.53 -2.20 -2.33 -1.40	1N 18-58 19-11-11-11-11-11-11-11-11-11-11-11-11-1	FY/SEC 980.9 977.2 961.2 961.2 913.1 83.8 83.8 788.8 768.3 748.0 DEVE 5 10.91 15.76 11.46 11.77 16.20 17.72 WCOR-1	FT/SEC 575.0 582.7 593.2 634.7 633.2 614.4 579.8 579.8 52.4 TURN DEGREE 59.45 54.37 41.59 36.85 32.86 34.69 35.43 WC/A-1	FT/SEC 2 578-2 6056-4 6036-6 672-2 650-6 625-8 625-8 CAMBER 59-94 59-94 51-71 45-27 45-27 702/	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY 2.1080 2.0369 1.9497 1.55496 1.3871 1.2867 1.2554	792.3 767.26.27.66 542.3 445.9 445.9 445.9 445.9 445.9 448.3 D-FAC .5599 .4920 .4323 .4685 .4983	FT2SEC -55.7 -1.6 43.0 20.2 22.5 16.8 15.0 13.4 0MEGA-B .1503 .1695 .0709 .0498 .0446 .0777 .0882	53.88 51.88 54.53 43.41 38.88 34.43 35.48 36.82 LOSS-P TOTAL .0355 .0437 .0144 .0173 .0144 .0173 .0359	DESEE   105 - 58	DESREF *21.01 *16.26 *9.52 *4.50 18.75 29.84 *36.58 36.58 *41.23 *P02' *P01' *9402 *9299 *9347 *9748 *9853 *9881 *9778	DEGREE  48.81  46.83  45.03  46.75  50.07  56.08  58.27  60.11  OMERA-8  HOCK  .0000  .0000  .0000  .0000  .0000	FT25C 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AP TOTAL .0000 .0000 .0000 .0000 .0000	FT/SEC. 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7824 .8892 .9167 .9047 .8319	FT/SEC 222-1 176-5 106-5 -52-6 -229-9 -482-7 -505-7 -524-8 M-1 .8805 .8763 .8616 .8165 .7297 .6956 .6749	FTZSEC -653-1 -615-3 -616-3 -674-6 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -1 -2 -1 -1 -1 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	FT/SEC 570-2 570-2 590-5 613-6 600-3 771-3 1 928-7 9951-5 973-1 M'=1 8 .5588 .5700 .5958 .6858 .7141 .7066 .6956	FT/SEC 597.5 615.2 695.1 778.7 865.0 930.0 952.5 974.0 M'-2 .7445 .7198 .6012 .8540 .9520 .9520 .9520 .9520 .9520 .9520 .9520 .9502
5 10 15 30 50 70 85 90 95 <b>%.SPAN</b> 5 10 15 30 50 70	IN 17.720 18.359 19.070 21.140 23.770 28.860 29.570 30.25 INCE ERREF -2.53 -2.20 -2.33 -1.40	IN 18.586 19.740 21.500 24.200 28.900 29.600 30.270 INCM DEGREE 6.85 6.85 6.85 6.85 6.85 6.85 6.85 6.85	FY/SEC 980.9 977.2 961.2 961.2 913.1 83.8 83.8 788.8 768.3 748.0 DEVE 5 10.91 15.76 11.46 11.77 16.20 17.72 WCOR-1	FT/SEC 575-0 575-0 583-2 634-4 614-4 579-8 552-4 TURN DEGREE 59-88 44-37 41-59 36-85 33-86 33-86 34-93 WC/A-1 LBM/SEC SeFT	FT/SEC 2 578.2 6036.9 6036.9 6037.6 625.6 625.6 625.8 CAMBER DEBREE 59.54 57.54 45.27 45.27 702/ TO2/	571.9 582.1 591.6 634.4 632.8 614.1 579.6 552.2 SOLIDTY 2.1080 2.0309 1.7557 1.58476 1.2867 1.2867 1.2867 1.2271	FT.SEC 792.3 767.0 720.2 627.6 542.3 445.9 445.9 445.9 445.9 55599 .4920 .4323 .4680 .4983 EFF-AD	FT2SEC -55.7 -13.0 20.2 27.5 16.8 15.0 13.4 OMEGA -B .1773 .1795 .0709 .0398 .0448 .0447 .0882 EFF-P	53.88 51.53 48.53 43.41 38.88 35.48 35.48 36.82 LOSS-P TOTAL .0355 .0437 .0433 .0144 .0173 .0359	DEGREE 1 #5.58 #0.17 4.15 1.83 2.03 1.57 1.48 1.39 LOSS-F -PROFILE -0355 0437 .0433 .0202 .0144 .0173 .0359	DESREF *21.01 *16.26 *9.52 *4.50 18.75 29.84 *36.58 36.58 *41.23 *P02' *P01' *9402 *9299 *9347 *9748 *9853 *9881 *9778	DEGREE  48.81  46.83  45.03  46.75  50.07  56.08  58.27  60.11  OMERA-8  HOCK  .0000  .0000  .0000  .0000  .0000	FT25C 619.6 639.8 645.8 666.4 711.2 775.3 810.3 804.6 796.2 FFF-AP TOTAL .0000 .0000 .0000 .0000 .0000	FT/SEC. 868.5 848.9 837.1 926.3 986.2 1057.3 1100.6 1102.3 1108.1 EFF-P STATIC .8166 .7824 .8892 .9167 .9047 .8319	FT/SEC 222-1 176-5 106-5 -52-6 -229-9 -482-7 -505-7 -524-8 M-1 .8805 .8763 .8616 .8165 .7297 .6956 .6749	FTZSEC -653-1 -615-3 -616-3 -674-6 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -913-1 -1 -2 -1 -1 -1 -2 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1 -1	FT/SEC 570-2 570-2 590-5 613-6 670-3 771-3 7928-7 928-7 973-1 M'=1 6.5588 6.5700 .5958 6.5958 6.5958 6.658 6.7181 6.7066 6.	FT/SEC 597.5 615.2 695.1 778.7 865.0 930.0 952.5 974.0 M'-2 .7445 .7198 .6012 .8540 .9520 .9520 .9520 .9520 .9520 .9520 .9520 .9502

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	DIA-1	DIA-2	V-1	V-2	V4-1	VM-2	v0-1	Vn=2	B-1	t-2	B*-1	B1-2	V+-1	V:-2	Vn*-1	V0 -2	U=1	u-2
% SPAN		IN I	TYSEC	FT/SEC	FT/SEC	FY/SEC.	T/SEC 1	T/SEC.	E GREE (	EGREE (	EGREE	DEGREE	FT/SEC 1	TTYEE	TISEC	FT/SEC	FT/SEC	FT/SEC
5 10		16.030				662.7	•0						734.1			390.4		
15		16.790 17.580		1099.9			•0	872.1	.00	52.46		-26.25		747.7	-454.7	330.7		
30		19.910	658.9				•0	671.7	•0e	50.18 44.66	41.79	-20.04			-489.2 -589.5	248.3		
50		23.090	686.7		686.7		•0	562.7	.00	41.57	46-15				<b>-715.5</b>			
70		26.260		772.3	697.7		•0	472.9	.00	37.75	50.09		1087.9					
85		28.610		697.9	696.8	549.5	•0	430 - 1	•00	38.07	52.78		1152-1	738.4	-917.4	-492.5	917.4	922.6
90							·č	426.2	•00	40.14	53.67	45.92	1173.5	727.7	~945.5	-522.2	945.5	948.4
95	30.150	30.180	693.4	634.8	693.4	472.4	•0	424.1	•0n	41.92	54 <b>.</b> 5	49.29	1194.2	724.3	-972.2	-549,1	972.2	973.2
	INCS	INCM	DEV	TURN (	CAMBER	SOLIDTY	D-EAC (	MEGA-R	I DSS=p	4-22K	202/	cFR-D	FFF-AD	OMCR.		M-2	M*-1	·/*-2
% SPAN	DEGREE C		FURFE (	FOREF	EGREE			, .LUA0	TOTAL	ROFILE	P01	POTAL	TOTAL S	MDCK.	· · · · ·			
5	-5.81	1.10	6.21	65.69		2.4334	.2316	-2207	·0391	.0371	1.5411	6809	8735		,5541	1 4 / 334	.6787	.7074
10	-4.93	1.74	4.8c	62.82	65.91	2.2861	.2918	. 1311	• 0257	0257	1.5789	. 7246	•9196		5673		7.80	•6ē43
15	-4.31	1.99	6.83	58.04		2.1574	.3435	.0783	•0170	.0170	1.5839	• 9502		• 0000	.5803	. 9664	738,	.6595
30	-3.42	2.25	11.28	44.21		1.9046	. 1364	0150	•0039	.0039	1.5636	. 9864	.9855	•0000	.6124	. A592		•6135
50	-2.47	2.51	11.42	30.20	39.12	1.6900	5041	0416	•0118	.011	1.5263	.9585	9559	•0000	-6400	7522	9265 1.0175	-5868
70	1.16 54	3.03 3.12	11.96	18.56 10.90	20.91	1.5343	.4832 .4889	0385	·0107	.0063	1.4399	.9541	.95j4 .8618	.0056	6506	.600	1.01/5	
85 90	47	3.04	13.65	7.75	174/3	1.4148	5084	1023	•0254 •0371	1227	1.409	.8033	7936	.01.5	6494	5759	1.078	•6457 •6333
95	- 53	2.83	15-13	5.22	7.48	1.3890	.5213	.1863	•0437	0393	1.3868	7539	7423	010	.6461	45542	1.1145	
33						1.0		• • • • •	•	•05-0	•••	11,50		.01		عرب – ر. ب	, [•]	
				WC/A-1		P02/	EFF-AD	EFF-P						9	TA-1 S'	74-2 S	LANT-1	SLANT-2
		RPM LE		BM/SEC	TO1	P61	*	*								0	ERREE !	DEGREE
		3200		SOFT			0										•-	
CTA.	TOR	7390	104.97	41.71	1.134/	1.5052	45.055	92.55							5•0	6.0	86.05	95.02
DIA																		
DIM	. 1 0 16																	
BIA		D1A=2	V-1	V=2	VM-1	VM-2	v0=1	V0=2	<b>#</b> -1	8-2	B!=1	B1=2	V+-1	V+-2	V01-1	ć nv		11=2
%SPAN	CA-1	DIA-2	V-1 FT/SEC	V-2 FT/SEC	VM-1 FT/SEC	VM-2 FT/SEC	VO-1	V0 <b>-</b> 2 FT/SEC :	B-1	B-2 DEGREE 1	B'-1	B1-2 DEGREE	V1-1 FT/SEC 1	V1-2	V0'-1	VO-2	U=1 FY/SEC	U-2 FT/SEC
% SPAN 5	DIA-1 IN 17.720	IN 18.580	FY/SEC 1033.7	623.6	628,8	621.6	820.5	-46.n	52,53	DEGREE (	EGREE -21.6	DEGREE 46.07	676.4	896.0	249.0	-645.	U-1 FT/SEC 2 571.4	U−2 F7/5Ec 599•1
% SPAN 5 10	DIA-1 IN 17.720 18.350	IN 18.58 <sub>0</sub> 19.110	FT/SEC 1033.7 1035.4	623.6 644.7	628.8	621.6	820 • 5 799 • 6	-46.0 2.5	52,53	DEGREE (	-21.6 <sub>0</sub> -17.55	DEGREE 46.07 43.60	676.4 689.9	896.0 889.9	249.0 207.9	-645.	2 5 <sup>7</sup> 1•4 7 59 <sub>1•7</sub>	599.1 616.2
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	18.58 <sub>0</sub> 19.11 <sub>0</sub> 19.74 <sub>0</sub>	FY/SEC 1033.7 1035.4 1018.5	623.6 644.7 653.2	628.8 657.7 685.2	621.6 644.3 652.2	820 • 5 799 • 6 753 • 2	-46.0 2.5 36.7	52.53 50.56 47.69	DEGREE ( -4.27 .22 3.21	-21.60 -17.55 -11.42	DEGREE 46.07 43.60 42.61	676.4 689.9 <b>6</b> 99.8	896.0 889.9 889.9	249.0 249.0 207.9	-645. -645. -645.	2 5 <sup>7</sup> 1•4 7 59 <sub>1•7</sub> 9 614•9	599.1 616.2 636.5
% SPAN 5 10 15 30	0IA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	FY/SEC 1033-7 1035-4 1018-5 962-6	623.6 644.7 653.2 686.4	628,8 657,7 685,2 725,3	621.6 644.3 652.2 686.3	820.5 799.6 753.2 632.6	-46.0 2.5 36.7	52.53 50.56 47.69 41.08	DEGREE ( -4.27 .22 3.21 .68	-21.60 -17.55 -17.55 -11.42	DEGREE 46.07 43.60 42.61 45.07	676.4 689.9 699.8 728.3	896.0 889.9 886.1 972.2	249.0 249.0 207.9 138.3	-645. -645. -645. -645.	2 5 <sup>7</sup> 1•4 7 591•7 9 614•9	599.1 616.2 636.5 696.5
% SPAN 5 10 15 30 50	0IA-1 IN 17.720 18.350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.600 24.200	FT/SEC 1033-7 1035-4 1018-5 962-6 897-7	623.6 644.7 653.2 686.4 669.1	628,8 657,7 685,2 725,3 715,8	621.6 644.3 652.2 686.3 669.0	820.5 799.6 753.2 632.6 542.0	-46.0 2.5 36.7 5.2	52.53 50.56 47.69 41.08 37.13	DEGREE 1 -4.27 .22 3.21 .68 1.23	21.60 -17.55 -11.42 3.85 17.84	DEGREE 46.07 43.60 42.61 45.07 43.85	676.4 689.9 699.8 7 <sub>2</sub> 8.3 753.0	896.0 889.9 886.1 972.2	249.0 249.0 207.9 138.3 -49.1	-545. -645. -645. -549. -648. -765.	2 5 <sup>7</sup> 1·4 7 5 <sup>9</sup> 1·7 9 614·9 4 6 <sup>8</sup> 1·7 9 772·9	599.1 616.2 636.5 696.5 780.4
% SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 25.790	18.580 19.110 19.740 21.600 24.200 26.880	FY/SEC 1033.7 1035.4 1018.5 962.6 897.7 842.1	623.6 644.7 653.2 686.4 669.1	628.8 657.7 685.2 725.3 715.3	621.6 644.3 652.2 686.3 669.0	820.5 799.6 753.2 632.6 542.0 463.6	-46.0 26.7 36.7	52.53 50.56 47.69 41.08 37.13	DEGREE ( -4.27 .22 3.21 .68 1.23	21.6 -21.5 -17.55 -11.42 3.85 17.84	DEGREE 46.07 43.60 42.61 45.07 49.85	676.4 689.9 699.8 7 <sub>2</sub> 8.3 753.0 8 <sub>0</sub> 9.9	896.0 889.9 886.1 972.2 1017.1 1088.5	7/5EC 249.0 207.9 138.3 -49.1 -230.9	7/SEC -645. -645. -599. -688. -765.	2 571.4 7 591.7 9 614.9 4 681.7 9 772.9 2 563.9	599.1 616.2 636.5 696.5 780.4 566.8
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 25.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	FY/SEC 1033.7 1035.4 1018.5 962.6 897.7 842.1 779.5	623.6 644.7 653.2 686.4 669.1 656.0 599.8	628.8 657.7 685.2 725.3 715.3 703.0	621.6 644.3 652.2 686.3 669.0 656.0 599.8	820.5 799.6 753.2 632.6 542.0 463.6 426.1	-46.05 36.7.24 36.4.4 -1.4	52.53 50.56 47.69 41.08 37.13 33.39 33.14	DEGREE ( -4.27 .22 3.21 .68 1.23	21.60 -17.55 -11.42 3.85 17.84 29.63	DEGREE 46.07 43.60 42.61 45.07 45.85 52.91 57.26	676.4 689.9 699.8 728.3 753.0 809.9	896.0 889.9 886.1 972-2 1017.1 1088.5	249.0 207.9 138.3 -49.1 -230.9	7/5EC -645. -645. -599. -688. -765.	2 571.4 7 591.7 9 614.9 4 681.7 9 772.9 2 563.9 7 930.6	599.1 616.2 636.5 696.5 780.4 566.8
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 25.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7	623.6 644.7 653.2 686.4 669.1 656.0 599.8 562.3	628.8 657.7 685.2 725.3 715.3 703.0 652.8 617.5	621.6 644.3 652.2 686.3 669.0 656.0 599.8 542.3	820.5 799.6 753.2 632.6 542.0 463.6 426.1	-46.05 36.7 36.7 36.7 11.4 -1.8	52.53 50.56 47.69 41.08 37.13 33.39 33.14	74.27 -4.27 -22 3.21 -68 1.23 -13	21.60 -17.55 -11.42 -3.85 17.84 29.63 37.7;	DEGREE 46.07 43.60 42.61 45.07 45.85 52.91 57.26	676.4 689.9 699.8 728.3 753.0 809.9 825.4 814.3	896.0 889.9 886.1 972.2 1017.1 1088.5 1109.1	249.0 207.9 138.3 -49.1 -230.9 -400.3 -530.4	-7/SEC -645. -645. -599. -688. -765. -868. -932. -948.	2 571.4 7 591.7 9 614.9 4 681.7 9 772.9 2 663.9 7 930.6 3 953.5	599.1 616.2 636.5 696.5 780.4 566.8 931.9
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 25.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 26.880 26.80 29.600 30.270	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7 725-4	623.6 644.7 653.2 686.4 669.1 656.0 599.8 562.3	628,8 657,7 685,2 725,3 715,3 703,0 652,8 617,5	621.6 644.3 652.2 686.3 669.0 656.0 599.8 542.3	820.5 799.6 753.2 632.6 542.0 463.6 426.1 423.1	-46.05 36.7 36.7 36.7 36.7 1.4 1.4 6.2 1	52.53 50.56 47.59 41.08 57.13 33.39 33.14 34.44 35.58	22 3-21 -68 1-23	21.60 -17.55 -11.42 -3.85 17.84 29.65 37.7, 40.65	DEGREE 46.07 43.60 42.61 45.07 45.05 57.26 57.26	676.4 689.9 699.8 728.3 753.0 805.9 825.4 814.5	896.0 889.9 886.1 972.2 1017.1 1088.5 1109.1 1102.5	249.0 207.9 138.3 -49.1 -230.9 -400.3 -530.4	7/SEC -645. -6.3. -599. -688. -765. -868. -932. -948. -967.	2 571.47 7 591.7 9 614.9 4 681.7 772.9 530.6 953.6 975.1	599.1 616.2 636.5 696.5 780.4 566.8 931.9 951.9 976.1
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 25.970 28.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7 725-4	623.6 644.7 653.2 686.4 669.1 656.5 599.8 562.3 533.8	628,8 657,3 685,2 725,3 715,3 652,8 617,5 589,3	621.6 644.3 652.2 686.3 669.0 656.0 599.8 542.3	820.5 799.6 753.2 632.6 542.0 463.6 426.1 423.1	-46.05 36.7 36.7 36.7 36.7 1.4 1.4 6.2 1	52.53 50.56 47.59 41.08 57.13 33.39 33.14 34.44 35.68	22 3-21 68 1-23 	21.60 -17.55 -11.42 -1.65 -1.76 -1.65 -1.76 -1.7	DEGREE 46.07 43.60 42.61 45.07 45.85 57.26 59.26 61.10	676.4 689.9 699.8 728.3 753.0 805.9 814.3 817.5	896.0 889.9 886.1 972.2 1017.1 1088.3 1109.1 1102.5	249.0 207.9 138.3 -49.1 -230.9 -400.3 -530.4	-7/SEC -645. -645. -599. -688. -765. -868. -932. -948.	2 571.4 7 591.7 9 614.9 4 681.7 9 772.9 2 663.9 7 930.6 3 953.5	599.1 616.2 636.5 696.5 780.4 566.8 931.9
% SPAN 5 10 15 30 50 70 85 90 95	0IA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS	1N 18.580 19.110 19.740 24.200 26.880 28.900 29.600 30.270 INCM DEGREE	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7 725-4 DEV DEGREE	623.6 644.7 653.2 686.4 669.1 656.0 599.8 562.3 533.8 TURN DEGREE	628.8 657.3 685.2 715.3 703.0 652.8 617.5 589.3 CAMBER DEGREE	621.6 644.3 652.2 686.3 569.0 656.0 599.8 542.3 533.7	820.5 799.6 753.2 632.6 542.0 463.6 423.1 423.1	-46.0 2.5 36.7 8.4 -1.4 -,8 ,8 9.1	52.53 50.56 47.59 41.08 37.13 33.39 33.14 34.44 35.68 LOSS-P	22 3.21 68 1.23 13 64 .98 LOSS-P	24.65 -11.42 -11.42 -11.42 -11.42 -11.42 -11.42 -11.43 -11	DEGREE 46.07 43.60 42.61 45.07 43.85 52.91 57.26 59.34 61.10 0ME@A-B	676.4 689.9 699.8 728.3 753.0 807.9 825.4 814.3 807.5	896.0 889.9 886.1 972.2 1017.1 1088.3 1109.1 1102.7 1104.5 EFF-P	7/SEC 0 249.0 207.9 138.3 -230.9 -400.3 -530.4 -532.0 M-1	-7/SEC -645. -645. -549. -765. -765. -946. -948. -947. M-2	27 571.4 591.7 94 661.7 97 772.9 663.9 7 930.6 953.5 975.1 M'-1	599.1 616.5 636.5 696.5 780.4 931.9 954.5 976.1
% SPAN 5 10 15 30 50 70 85 90 95	OIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.579 30.240 INCS DESREE 2.74	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.600 30.270 INCM 0E GREE 6.71	FY/SEC 1033-7 1035-4 1018-5 962-7 842-1 779-5 748-7 725-4 DEV DEGREE 12-23	623.6 644.7 656.4 669.1 656.0 599.8 562.3 533.8 TURN DEGREE 56.8	628.8 657.7 685.3 715.3 703.0 652.8 617.5 589.3 CAMBER DEGREE 62.54	621.6 644.3 682.2 686.3 656.9 656.9 599.8 542.3 533.7	820.5 799.6 753.6 632.6 463.6 423.1 423.1 423.1 D-FAC	-46.0 2.5 36.7 5.4 -1.8 8 9.1 0MEGA-8	52.53 50.56 47.59 41.08 37.13 33.39 33.14 34.44 35.68 LOSS-P TOTAL .0358	1.27 3.21 3.21 3.68 1.23 06 .98 LOSS-P PROFILE	21.60 -17.35 -11.42 -1.42 -1.42 -1.42 -1.42 -1.43 -1.4	DEGREE 46.07 43.60 42.61 45.07 45.85 57.26 57.26 61.10 0MESA-B	676.4 689.9 699.8 728.3 753.0 809.9 825.4 814.3 807.5 FFF-AD TOTAL	896.0 889.9 886.1 972.2 1017.1 1088.5 1109.1 1102.7 1104.5 EFF-P STATIC .8126	7/SEC 249.0 207.3 138.3 -230.9 -400.3 -530.4 -530.4 -552.0 M-1	-745. -645. -645. -549. -765. -765. -765. -932. -948. -967. M_2	2 571.4 7 591.7 7 591.7 9 681.7 7 772.9 9 563.9 9 753.5 9 975.1 M'-1	999-1 616-2 636-5 7696-5 780-4 951-9 954-5 976-1 H'-2
% SPAN 5 10 15 30 50 70 85 90 95	OIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.52	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM 0EGREE 6.71 6.77	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7 725-4 DEV DEGREE 12-23 16-16	623-6 644-7 653-4 669-1 656-0 592-3 533-6 TURN DEGREE 56-8 50-35	628.8 628.7 6257.2 725.3 703.0 6527.5 589.3 CAMBER 62.5 59.58	621.6 644.3 644.3 668.3 669.0 656.0 5542.3 533.7 50LIDTY	820.5 799.6 7532.6 552.6 425.6 425.1 423.1 423.1 D=FAC .5630	-46.0 2.57 36.2 36.2 36.2 36.2 36.2 36.2 36.2 36.2	52.53 50.56 47.08 57.13 53.39 53.14 35.58 LDSS-P TOTAL .0358	1.27 -4.27 -4.27 22 168 1.23 16 .98 164 .98 164 .98 164 .98	21.50 -21.55 -11.52 -11.52 -13.65 -13	DEGREE 46.07 43.60 45.07 45.07 45.05 57.26 57.26 57.34 61.10 000000000000000000000000000000000	676.4 689.9 699.8 728.3 753.0 809.9 825.4 817.5 FFF-AD TOTAL 00000	896.0 889.9 886.1 972.2 1017.1 1088.5 1109.1 1102.7 1104.5 EFF-P STATIC .7888	7/SEC 0 249.0 2078.3 149.9 149.9 1400.3 1504.6 1552.0 M-1 .9358	-545. -645. -549. -549. -765. -765. -946. -947. -967. -967. -554.	2 571.4 7 591.7 7 591.7 9 681.7 7 772.9 9 563.9 9 75.5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	999-1 616-5 636-5 7 696-5 7 86-8 9 31-9 976-1 M'-2 -7658
% SPAN 5 10 15 30 50 70 85 90 95	OIA-1 IN 17.720 18.350 19.070 21.140 25.970 28.860 29.579 30.240 INCS DESREE 2.74 2.52 1.54	IN 18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM 0E GREE 6.77 5.88	FY/SEC 1033-7 1035-4 1018-5 962-6 897-7 842-1 779-5 748-7 725-4 0EV DEGREF 12-23 16-66	623-6 644-7 653-4 669-1 656-0 592-3 533-8 TURN DEGREE 56-8 50-35	628.8 628.7 6257.2 7253.0 6527.5 6527.5 6527.5 CAMBER DEGREE 629.5 57.4	621.6 644.2 664.2 668.2 669.0 676.0 579.8 574.3 574.0 574.0 2.1075 2.1075 2.1075	820.5 795.6 7532.6 552.6 463.6 423.1 423.1 423.1 423.1 55358	-46.05 2.55 2.55 2.44 2.14 3.21 -1.48 6.21 -1.48 6.21 0MEGA-8 1.1526	52.53 5p.56 47.98 57.13 53.39 53.14 34.44 35.68 LDSS-P TOTAL .0418 .0417	1.25 -4.27 -2.21 -68 1.23 -136 -64 -98 LOSS-P PROFILE -0358 -0413	21.60 -17.55 -11.84 27.63 37.73 40.67 43.13 P02/6 .9314	DEGREE 46.07 43.61 45.07 43.65 57.26 57.34 61.10 DMEGA-B 100K 0000 0000 0000 0000	676.4 689.9 699.8 7253.0 809.9 825.4 817.5 FFF-AD TOTAL .0000 .0000	896.9 886.1 972-2 1017.1 1089-1 1102-7 1104-5 EFF-P STATIC .6126 .7898	7 / SEC 0 0 2078-3 1 - 230	7/5EC	2 571.47 51.47	999-1 616-2 636-5 7 696-5 7 80-8 931-9 5 931-9 5 976-1 M'-2 7693 7654
% SPAN 5 10 15 30 50 95 95 % SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.74 2.52	IN 18.580 19.110 19.740 21.600 24.200 26.580 29.600 30.270 INCM 0EGREE 6.71 6.77 5.88	FY/SEC 1033-7 1035-7 1035-5 962-6 897-7 842-1 779-5 748-7 725-8 DEV DEGREE 12-23 16-16 18-66	623-6 644-7 653-6 669-1 656-9 552-3 533-8 TURN DEGREE 56-8 <sub>0</sub> 50-35 44-40	628.8 628.7 6257.5 725.3 703.0 6517.5 589.3 CAMBER 59.58 59.58	621.6 644.5 644.5 668.6 669.0 676.0 5542.3 533.7 50LIDTY 2.1075 2.1079 1.7534	820.6 793.6 753.6 632.6 423.6 423.1 423.1 D-F AC 15638 55638 55638	-46.057 36.24 11.88 9.1 0MEGA - 15.27 -1.526 -1.526	52.53 5p.56 41.08 37.13 33.39 33.39 33.39 35.58 LDSS-P TOTAL .0358 .0418 .0418	DEGREE 7 -4 -27 -2 - 2 - 2 - 2 - 2 - 2 - 2 - 2 - 2	21.60 -17.42 -17.42 -17.42 -17.42 -17.43 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67 -17.67	DEGREE  46.07  43.60  42.61  45.07  47.85  57.26  59.34  61.10  MEGA-B  10CK  0000  0000  0000	676.4 689.9 699.8 728.3 753.0 807.5 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000	75EC 896.0 886.1 972.2 1017.1 1088.5 1102.7 1104.5 EFF-P STATIC .6128 .7898 .6963	7/SEC 249.0 207.9 138.3 -49.1 -250.9 -400.5 -530.4 -552.0 M-1 .9350 .9159 .8650	7/5EC	2 571.47 7 511.77 511.77 511.77 511.77 511.77 7753.97 9353.5 975.1 1.625.5 625.5 655.6	999-1 616-2 636-5 780-4 931-9 931-9 976-1 H'-2 -7693 -7640 -7693 -7640 -8447
% SPAN 5 10 15 30 50 70 85 90 95 10 15	OIA-1 IN 17.720 18.350 19.070 21.140 25.970 28.860 29.579 30.240 INCS DESREE 2.74 2.52 1.54	IN 18.580 19.110 19.740 21.600 24.200 26.880 29.600 30.270 INCM 0E GREE 6.77 5.88	FY/SEC 1035-7 1035-7 1018-5 962-6 897-7 842-1 779-5 748-7 725-# DEV DEGREE 12-23 16-66 18-66 18-66 18-68 14-68	623-6 644-7 653-2 686-4 656-9 599-8 562-3 533-8 TURN DEGREE 56-85 50-35 40-40 40-40 33-89 33-32	628,8 657,7 685,2 725,3 715,3 703,0 617,5 589,3 CAMBER DEGREE 52,58 57,08 57,08	621.6 644.5 644.5 644.5 645.0 676.0 599.0 599.0 574.3 501.0 1.7534 1.7534 1.7534	820.62 799.62 7532.60 423.1 42	-46.057 36.24.48 20.75 36.24.48 37.14.88 9.15.26 9.15.26 9.15.26 9.16.29 9.16.29	52.53 5p.56 41.98 37.13 33.34 35.56 2055-P 70TAL .0358 .0417 .0158 .0159	DEGREE 7 - 4 - 2 2 3 - 2 1 - 6 8 1 - 2 3 - 6 8 1 - 2 3 - 6 8 1 - 2 3 - 6 8 1 - 2 3 - 6 8 1 - 2 3 - 6 8 1 - 2 3 - 6 8 1 - 2 3 1 - 2 4 1 3 1	21.60 -17.55 -11.84 27.63 37.73 40.67 43.13 P02/6 .9314	DEGREE 46-07 43-661 43-661 45-67 45-67 52-91 57-26 57-26 61-14 0MEGA-B 10CK 00000	676.4 689.9 699.8 728.3 753.0 809.9 825.9 814.3 807.5 FFF-AD TOTAL .0000 .0000	896.9 886.1 972.2 11088.5 1109.1 1102.7 1104.5 EFF-P STATIC .7888 .7888 .7898 .7898	7/SEC 249.0 207.9 138.3 -49.1 -250.9 -400.5 -530.4 -552.0 M-1 .9350 .9159 .8650	7/5EC	2 571.47 571.	999-1 616-5 636-5 7 696-5 7 80-8 931-9 5 954-5 976-1 M'-2 .7658 .7658 .8447 .88438
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 16 30	0IA-1 IN 17.720 18.350 19.070 21.140 25.970 28.860 29.570 30.240 INCS DESREET 2.74 2.52 -1.50 -2.40 -3.60	IN 18.580 19.10 19.740 21.600 24.200 26.880 29.600 30.270 INCM 0EGREE 6.71 6.71 6.71 5.88 3.31 3.11 1.96	TYSEC 1033-7 1035-7 1018-5 962-6 897-7 842-1 779-5 748-7 725-4 DEV DEGREE 12-23 16-16 18-66 14-68 12-02 14-99	623-6 644-7 653-2 686-4 669-1 559-8 562-3 532-8 TURN DEGREE 56-8 <sub>0</sub> 50-35 44-48 40-4 <sub>0</sub> 35-89 33-32	628,8 657,7 685,2 725,3 715,3 652,8 617,5 589,3 CAMBER DEGREE 62,54 57,6 57,6 44,2 44,2 45,3	621.6 644.5 644.5 644.5 646.5 669.0 659.0 599.0 592.1 2.1075 2.1075 2.1075 2.1075 1.7534 1.7534 1.7886 1.2866	820.5 799.6 753.6 632.6 632.6 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1 425.1	-46.057 26.25.24 26.25.24 26.25.24 27.26.25 27.2	52.53 5p.56 41.98 37.13 33.34 35.56 2055-P 70TAL .0358 .0417 .0158 .0159	DEGREE 7 -4 .27 -2 .21 .68 1.23 -168 .69	21.60 -17.42 3.85 17.84 27.7, 43.13 P02/Si .9347 .93147 .9859 .9859	DEGREE 46-07 43-60-07 43-60-07 43-60-07 43-65 57-26 57-34 61-14 0MEGA-B 10CK 0000 0000 0000 0000 0000 0000 0000	676.4 689.9 699.8 728.3 753.0 807.5 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000	75Ec 896.9 886.1 972.2 1017.5 1108.5 1102.7 1104.5 EFF-P STATIC .7898 .7898 .8963 .9124	7 SEC 249.0 2079.138.3 -49.138.3 -49.14 -552.0 -552.0 -552.0 -552.0 -1 .9350.8 -1 .7485.0 -1 .7485.	7/5EC	2 571.47 571.47 5618.7.79 6617.23.9 677.23.9 677.23.9 677.23.9 672.35 672.35 672.23 672.23 672.23	979-1 616-5 636-5 780-8 931-5 931-5 976-1 4'-2 -7695 -76447 -8838 -940-6
% SPAN 5 10 15 30 50 70 85 90 95 10 15 10 16 50 70 6 90	OIA-1 IN 17.720 18.350 19.070 21.140 25.790 28.860 29.570 30.240 INCS DEGREE 1.50 -2.40 -3.60 -3	IN 18.580 19.740 21.600 22.600 26.889 20.0 29.600 30.270 INCM INCM INCM INCM INCM INCM INCM INCM	FY/SEC 1035-7 1035-7 1018-5 962-6 897-7 779-5 748-7 725-4 DEGREE 12-23 16-16 18-66 14-69 14-92 12-72 14-99 16-35	623-6 644-7 653-2 686-4 669-1 599-8 562-3 533-8 TURN DEGREE 56-8 <sub>0</sub> 50-35 44-48 40-40 35-89 33-52 33-52	628,8 657,7 685,2 725,3 715,3 703,0 652,8 617,5 589,3 CAMBER DEGREE 62,54 59,58 57,58 44,79 44,79	621.6 644.2 644.2 646.2 646.2 656.0 656.0 656.0 5542.3 533.7 50L IO TY 2.0294 1.7534 1.7534 1.7534 1.2856 1.2856	820.5 799.6 753.2 632.6 632.6 425.1 423.1 423.1 0-FAC .5913 .5630 .4432 .4706	-46.57 26.24 26.24 26.24 26.24 26.24 26.24 26.24 26.24 27.24	52.53 50.56 41.08 57.13 57.13 53.14 57.33 53.14 55.68 LDSS-P TOTAL .0151 .0151 .0151 .0264	DEGREE 7 -4 .22 3 .21 6 .23 - 1 .64 - 1 .64 - 98 LOSS - FE - 0 .58 - 0 .68 - 1 .64 - 1 .64	21.60 -17.42 -17.42 -17.42 -17.42 -17.64 -17.67 -17	DEGREE 45-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	676.4 689.9 699.8 728.3 753.9 825.4 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000	75Ec 896.9 886.1 972.2 1017.1 1089.1 1102.7 1104.5 EFF-P 5TATIC .7898 .7898 .8963 .9254 .8578	7 SEC 249.0 207.3 3 -49.1 -400.3 -504.6 -530.4 6 -530.3 7483 6576	7/45. -6.3. -6.39. -76.7. -76.7. -93.8. -94.7. -94.7. -5.5. -5.5. -5.7.	279 49 273 0 45 22 35 60 22 25 60 22 35 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 22 25 60 25	979-1 616-5 636-5 780-8 931-5 954-5 7693 7693 7693 7688 8838 9876 8838 9876 8838 9876 8838
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 16 30 50 70 6	0IA-1 IN 17.720 18.350 19.070 21.140 25.970 28.860 29.570 30.240 INCS DESREET 2.74 2.52 -1.50 -2.40 -3.60	IN 18.580 19.740 21.600 22.600 26.889 20.0 29.600 30.270 INCM INCM INCM INCM INCM INCM INCM INCM	FY/SEC 1035-7 1035-7 1018-5 962-6 897-7 779-5 748-7 725-4 DEGREE 12-23 16-16 18-66 14-69 14-92 12-72 14-99 16-35	623-6 644-7 653-2 686-4 669-1 599-8 562-3 533-8 TURN DEGREE 56-8 <sub>0</sub> 50-35 44-48 40-40 35-89 33-32 33-32	628,8 657,7 685,2 725,3 715,3 703,0 652,8 617,5 589,3 CAMBER DEGREE 62,54 59,58 57,58 44,79 44,79	621.6 644.5 644.5 644.5 646.5 669.0 659.0 599.0 592.1 2.1075 2.1075 2.1075 2.1075 1.7534 1.7534 1.7886 1.2866	820.5 799.6 753.2 632.6 632.6 425.1 423.1 423.1 0-FAC .5913 .5630 .4432 .4706	-46.057 -26.448 -26.218 -36.418 -376 -9 A 5596 -156599 -08670 -08670	52.53 50.56 41.08 57.13 57.13 53.14 57.33 53.14 55.68 LDSS-P TOTAL .0151 .0151 .0151 .0264	DEGREE 7 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	21.60 -17.42 -17.42 -17.42 -17.42 -17.64 -17.67 -17	DEGREE 46-07 43-60-07 43-60-07 43-60-07 43-65 57-26 57-34 61-14 0MEGA-B 10CK 0000 0000 0000 0000 0000 0000 0000	676.4 689.9 699.8 728.3 753.0 807.9 814.3 807.5 FFF-AD TOTAL 00000 00000 00000 00000	75Ec 896.9 886.1 972.2 1017.1 1088.5 1102.7 1104.5 EFF-P 5TATIC .7888 .7898 .7898 .9284 .9284 .9378 .8518	7 SEC 249.0 2079.138.3 -49.138.3 -49.14 -552.0 -552.0 -552.0 -552.0 -1 .9350.8 -1 .7485.0 -1 .7485.	7/45. -6.3. -6.39. -76.7. -76.7. -93.8. -94.7. -94.7. -5.5. -5.5. -5.7.	2 571.47 571.	979-1 616-5 636-5 780-8 931-5 954-5 7693 7693 7693 7688 8838 9876 8838 9876 8838 9876 8838
% SPAN 5 10 15 30 50 70 85 90 95 10 15 10 16 50 70 6 90	OIA-1 IN 17.720 18.350 19.070 21.140 25.790 28.860 29.570 30.240 INCS DEGREE 1.50 -2.40 -3.60 -3	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270 INCM 0EGREE 6.717 5.88 3.31 3.11 1.96 2.90 4.19 5.25	FY/SEC 1035-7 1035-7 1018-5 962-6 897-7 842-1 779-5 748-7 725-# DEV DEGREE 12-23 16-16 18-66 18-66 18-69 14-99 16-35 17-31	623-6 644-7 653-2 686-4 656-9 599-8 562-3 533-8 TURN DEGREE 56-8 50-35 40-40 40-40 35-89 33-32 33-32 34-70	628,8 627,7 625,2 715,3 715,3 632,8 617,5 589,3 CAMBER DEGREE 62,54 59,58 57,08 57,08 44,79 45,31 45,96	621.6 644.2 644.2 646.3 649.0 659.0 559.8 5542.3 533.7 50LIDTY 2.10794 1.7534 1.7534 1.78366 1.2856 1.22571	820.5 799.6 753.6 4632.6 423.1 423.1 423.1 5913 55358 4697 4432 4706 4965	-46.057 26.24.48 26.21 26.21 26.21 26.21 27.26 2	52.53 50.56 41.08 57.13 57.13 53.14 57.33 53.14 55.68 LDSS-P TOTAL .0151 .0151 .0151 .0264	DEGREE 7 -4 .22 3 .21 6 .23 - 1 .64 - 1 .64 - 98 LOSS - FE - 0 .58 - 0 .68 - 1 .64 - 1 .64	21.60 -17.42 -17.42 -17.42 -17.42 -17.64 -17.67 -17	DEGREE 45-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	676.4 689.9 699.8 728.3 753.0 807.5 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	75Ec 896.9 886.1 972.2 1017.5 1108.5 1108.5 EFF-P 5TATIC .6128 .7898 .6963 .9254 .8578 .8369	7 SEC 249.0 207.38.3 -49.1 -25.0 -5.0 -5.0 -5.0 -5.0 -6.0 -5.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6	7/45. -6,19. -6,19. -6,19. -6,19. -6,19. -76.5. -76.5. -76.5. -94.7. -94.7. -95.5. -55.5. -56.3. -56.5. -56.5. -56.5. -56.5. -76.5.	279 499 27 3 0 45 2 2 4 4 9 5 0 7 7 7 7 0 3 0 4 5 2 2 4 4 9 5 5 0 7 7 7 0 3 0 7 7 0 5 2 4 4 9 5 5 0 7 7 0 5 3 5 6 2 3 5 6 2 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 5 6 5 7 2 6 2 5 6 5 6 2 5	999-1 616-2 636-5 7 696-5 7 80-8 931-9 5 954-5 976-1 M'-2 .7658 .7658 .7658 .9472 .9606 .9510
% SPAN 5 10 15 30 50 70 85 90 95 10 15 10 16 50 70 6 90	OIA-1 IN 17.720 18.350 19.070 21.140 25.790 28.860 29.570 30.240 INCS DEGREE 1.50 -2.40 -3.60 -3	IN 18.580 19.740 21.600 24.200 26.880 29.600 30.270 INCM 6.71 6.77 5.88 3.31 3.11 1.96 2.90 4.19 5.25 NCOR-1	TYSEC 1033-7 1035-7 1035-7 962-6 897-7 842-1 779-5 748-7 725-8 DEV DEGREE 12-23 16-16 18-68 12-92 14-99 16-35 17-31	623-6 644-7 653-2 686-4 659-1 559-8 562-3 532-8 TURN DEGREE 56-8 <sub>0</sub> 50-35 4-48 40-4 <sub>0</sub> 35-89 33-32 33-32 34-7 <sub>0</sub>	628,8 657.7 685.2 725.3 715.3 652.8 617.5 589.3 CAMBER DEGREE 62.54 59.5 57.6 44.2 44.2 45.3 45.3 617.5	621.6 644.3 644.3 644.3 649.0 676.0 59.0 59.0 579.0 1.975.1 1.975.1 1.986.1 1.2856.1 1.2856.1 1.2856.1	820.5 799.6 753.6 425.6 425.1	-46.057 26.2488 26.2488 27.488.21 27.489 27.118.2769 27.116.259 27	52.53 50.56 41.08 57.13 57.13 53.14 57.33 53.14 55.68 LDSS-P TOTAL .0151 .0151 .0151 .0264	DEGREE 7 -4 .22 3 .21 6 .23 - 1 .64 - 1 .64 - 98 LOSS - FE - 0 .58 - 0 .68 - 1 .64 - 1 .64	21.60 -17.42 -17.42 -17.42 -17.42 -17.64 -17.67 -17	DEGREE 45-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	676.4 689.9 699.8 728.3 753.0 807.5 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	75Ec 896.9 886.1 972.2 1017.5 1108.5 1108.5 EFF-P 5TATIC .6128 .7898 .6963 .9254 .8578 .8369	7 SEC 249.0 207.38.3 -49.1 -25.0 -5.0 -5.0 -5.0 -5.0 -6.0 -5.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6	7/45. -6,39. -6,49. -6,49. -6,49. -6,49. -6,49. -76.5. -93.2. -94.5. -94.7. (2.55.4.5. -5.54. -5.	279492730 66872-99575-1 4605255 99575-1 46255 667229575-1 462556 66722956 67722556 67722556 77706	999-1 616-2 636-5 7 696-5 7 80-8 931-9 954-5 976-1 M'-2 -7658 -7658 -9490 -9510 -9490 -9490 -9490 -9490 -9490 -9490 -9490 -9490
% SPAN 5 10 15 30 50 70 85 90 95 10 15 10 16 50 70 6 90	OIA-1 IN 17.720 18.350 19.070 21.140 25.790 28.860 29.570 30.240 INCS DEGREE 1.50 -2.40 -3.60 -3	IN 18.580 19.740 21.600 24.200 26.880 29.600 30.270 INCM 6.71 6.77 5.88 3.31 3.11 1.96 2.90 4.19 5.25 NCOR-1	TYSEC 1035-7 1035-7 1018-5 962-6 897-7 779-5 748-7 725-4 DEGREY 12-23 16-16 18-66 14-69 12-72 14-95 16-35 17-31	623-6 644-7 653-2 686-4 656-9 599-8 562-3 533-8 TURN DEGREE 56-8 50-35 40-40 40-40 35-89 33-32 33-32 34-70	628,8 657.7 685.2 725.3 715.3 652.8 617.5 589.3 CAMBER DEGREE 62.54 59.5 57.6 44.2 44.2 45.3 45.3 617.5	621.6 644.2 644.2 646.3 649.0 659.0 559.8 5542.3 533.7 50LIDTY 2.10794 1.7534 1.7534 1.78366 1.2856 1.22571	820.5 799.6 753.6 4632.6 423.1 423.1 423.1 5913 55358 4697 4432 4706 4965	-46.057 26.24.48 26.21 26.21 26.21 26.21 27.26 2	52.53 50.56 41.08 57.13 57.13 53.14 57.33 53.14 55.68 LDSS-P TOTAL .0151 .0151 .0151 .0264	DEGREE 7 -4 .22 3 .21 6 .23 - 1 .64 - 1 .64 - 98 LOSS - FE - 0 .58 - 0 .68 - 1 .64 - 1 .64	21.60 -17.42 -17.42 -17.42 -17.42 -17.64 -17.67 -17	DEGREE 45-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6-6	676.4 689.9 699.8 728.3 753.0 807.5 814.3 807.5 FFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	75Ec 896.9 886.1 972.2 1017.5 1108.5 1108.5 EFF-P 5TATIC .6128 .7898 .6963 .9254 .8578 .8369	7 SEC 249.0 207.38.3 -49.1 -25.0 -5.0 -5.0 -5.0 -5.0 -6.0 -5.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6.0 -6	7/45. -6,39. -6,49. -6,49. -6,49. -6,49. -6,49. -76.5. -93.2. -94.5. -94.7. (2.55.4.5. -5.54. -5.	279 499 27 3 0 45 2 2 4 4 9 5 0 7 7 7 7 0 3 0 4 5 2 2 4 4 9 5 5 0 7 7 7 0 3 0 7 7 0 5 2 4 4 9 5 5 0 7 7 0 5 3 5 6 2 3 5 6 2 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 2 5 6 3 5 6 2 5 6 5 7 2 6 2 5 6 2	999-1 616-2 636-5 7 696-5 7 80-8 931-9 954-5 976-1 M'-2 -7658 -7658 -9490 -9510 -9490 -9490 -9490 -9490 -9490 -9490 -9490 -9490

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ROTOR
                                                                                      100% of Design Speed
            DIA-1 DIA-2 V-1
                                                V=2
                                                          VM=1 VM=2
                                                                                    VU-1 VU-2 E-1
                                                                                                                       8-2 8'-1 8'-2 V'-1 V'-2 VO'-1 VO'-2
MASPAN IN TYSEC FT/SEC FT/SEC FT/SEC FT/SEC FT/SEC DEGREE DEGREE DEGREE DEGREE FT/SEC 
            13.120 16.030 590.4 1099.5 590.4 640.3
                                                                                         .0 893.8
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           17.720 18.580 1006.3 593.9 599.0 590.9 808.5 -55.3 53.46 -5.38 -21.67 47.87 644.7 881.1 239.0 -653.4 570.5 598.2 18.350 19.110 1004.6 610.6 630.5 610.1 782.0 -.2 51.12 -.03 -16.88 45.24 659.0 866.7 191.3 -615.5 590.8 615.2
            19.070 19.740 989.5 616.9 656.1 617.7 738.8 38.5 48.29
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                       RPH LBM/SEC LBM/SEC TO1 PO1
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## Blade-Element and Overall Performance with Stator-Hub Slit Recirculation 100% of Design Speed

ROT	OR		200	ide-E1	0111 0110				esign S		1 20220	/1 11Uk	, 0111		u lu lu Oi			
% SPAN		D1A-2	V-1	V-2	V%-1	VM-2	V0-1	VQ-2	B-1	B-2	B'-1		V'-1		V0 -1		U~1	U <b>-</b> 2
<u> 5 3 AN</u>		IN											FT/SEC !	FY/SEC I				
10		16.030		1091.0				897.1	.00	55.31 52.83		-31.47 -25.50			-423.1 -454.7		423.1 454.7	
15		16.790 17.580		1065.0			.0		.00	50.69		-19.30			-489.3			
30		19.910		928.7				669.0	.00	46.06	42.45				-589.6		589.6	
50		23,090		828.6				563.4	.00	42.83	46.77					-181.2		
70		26.260					0		.00	39.78			1050.4			-361.6		
85		28,610		708.1					.00	39.24	53.13		1147.0			-475.0		
90	29.320	29.410	687.6	679.7	687.6		.0	447,4	∙ួមប	W1.21	53.97	44.43	1169,2	716.4	-945,6	-501.1	945,6	
95	30,150	30.180	686.7	653.5	686.7	477.4	.0	446.2	.00	43.06	54.77	47.83	1190.4	711.3	-972.4	~527.2	972.4	973,4
	INCS	INCH	DEV			SOLIDTY	D-FAC	OMEGA-B					EFF-AD		M=1	M-2	M+-1	M1-2
	DEGREE												TOTAL S					
5	-5.21			67.28		2.4837					1.5357						•6676	
10	-4.30					2,2065		1163			1,5075							
15	-3.67					2-1579					1.5731				.5661			
30 50	-2.76					1,2054	. 4686 . 5254				1.5612							
70	-1.86 70		11.70	18.82		1.6908	.5116				1.5193			.0092			1.0060	
85	21					1.4422			.0171		1.4931				,6409		1.0697	
96	16			9.54		1,4148	,5227	1125	0284		1.4699				.6404		1.0902	
95	25			6,94		1.3891	.5375		0363		1.4497				6395		1.1091	
						D00.	EFF-AD	FFF 0								T		C: 4NT 0
			MCOR-1 BM/SEC			P02/ P01	*	¥						,	214-7 2	TA-2 SI Di		DEGREE
		:11.11.		SGFT														<u></u>
		7377-0	182,75	41.21	1,1365	1,5245	93.805	94.24							5.0	6.0	86,05	95.02
STA	TOR																	
STA		<b>DIA-2</b>	V-1	u_9	V	VMo	V0-1	Vn-2	<b>9</b> _1	B2	At = 1	B1=2	V1-1	V+=2	VB 1 = 1	Vc+=2	U <b>~1</b>	i.l=2
	DIA-1	DIA-2	V-1 FT/SFC 1	V-2 *T/5FC #	VH-1 =T/5#C I	VN-2 FT/SFC F	V0-1 -T∕SEC #	∀C-2 T/SEC I	8-1 DEGREE I	ð-2 ÆGÆÆÆ D	B'-1 EGREE I	B1-2 DEGREE	V'-1 FT/ <b>S</b> EC F	V1-2 T/SEC F	V0'-1	V01-2 FT/SEC F	U-1 FT/SEC /	U=2 FT/SEC
STA'	DIA-1 IN	DIA-2 IN	FT/SEC 1	v-2 -T/SEC 1 -576.4	T/SEC	T/SEC F	VO-1 T/SEC F	T/SEC T	EGREE I	B-2 DEGREE D -6,00	EGREE I	DEGREE	TI/SEC F	874.9	T/SEC 5	-659.3	571.5	FT/SEC
% SPAN	DIA-1 IN 17,720	In	FT/SEC 1	T/SEC F	T/SEC	574.6	T/SEC F	T/SEC T	EGREE I	-6.00	EGREE I	DEGREE	62 <b>5.</b> 8	874.9 859.4	7/SEC 8 240.2 186.5	-659.3 -620.6	571.5 591.8	599.2 616.3
% SPAN	DIA-1 IN 17,720 18,350	in 16.580	FT/SEC 1 996.3 993.7	1/5EC 1	7/SEC   577.8 617.7	574.6 594.3 601.6	611.7 778.3 734.5	-60.1 -4.3 36.4	54.55 51.56 48.72	-6.00 42 3.46	EGREE 1 -22.57 -16.80 -10.51	48.91 46.23 44.94	625.8 645.4 656.2	874.9 859.4 849.8	7/SEC 8 240.2 186.5 119.5	-659.3 -620.6 -600.2	571.5 591.8 615.0	599.2 616.3 636.6
% SPAN 5 10 15 30	DIA-1 IN 17,720 18,350 19,070 21,140	IN	FT/SEC 1 996.3 993,7 977.4 927.2	7/SEC 7 576.4 594.8 602.7 648.7	577.8 617.7 644.6 680.0	574.6 594.3 601.6 648.5	811.7 778.3 734.5 630.0	FT/SEC T -60.1 -4.3 36.4 13.2	54.55 51.56 48.72 42.79	-6.00 42 3.46 1.17	-22.57 -16.80 -10.51 4.32	0EGREE   48.91 46.23 44.94 46.49	625.8 645.4 656.2 683.3	874.9 859.4 849.8 942.3	7/SEC 9 240.2 186.5 119.5 -51.8	7/SEC F -659.3 -620.6 -600.2 -683.4	571.5 591.8 615.0 681.8	599,2 616,3 636,6 696,6
% SPAN 5 10 15 30 50	DIA-1 IN 17.720 18,350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.600 24.200	FT/SEC 1 996.3 993.7 977.4 927.2 812.6	FT/SEC F 576.4 594.8 602.7 648.7 541.5	577.8 577.8 617.7 644.6 680.0 683.5	574.6 574.6 594.3 601.6 648.5 641.3	77/SEC F 811.7 778.3 734.5 630.0 542.6	FT/SEC T -60.1 -4.3 36.4 13.2 16.6	54.55 51.56 48.72 42.79 38.43	-6.00 42 3.46 1.17 1.50	EGREE 1 -22.57 -16.80 -10.51 4.32 18.56	DEGREE   48.91 46.23 44.94 46.49 49.97	625.8 645.4 656.2 683.3 722.4	874.9 859.4 849.8 942.3 997.3	7/SEC 9 240.2 186.5 119.5 -51.8 -230.5	-659.3 -620.6 -600.2 -683.4 -763.7	571.5 571.5 591.8 615.0 681.8 773.1	599,2 616,3 636,6 696,6 780,5
% SPAN 5 10 15 30 50 70	DIA-1 IN 17.720 18,350 19.070 21.140 23.970 26.790	18 . 560 19 . 110 19 . 740 21 . 600 24 . 200 26 . 360	FT/SEC 1 996.3 993.7 977.4 927.2 012.6 627.6	576.4 576.4 594.8 602.7 648.7 541.5 635.6	577.8 577.8 617.7 644.6 680.0 683.5 677.2	574.6 574.6 594.3 601.6 648.5 641.3 035.5	7/SEC F 811.7 778.3 734.5 630.0 542.6 475.6	-60.1 -4.3 36.4 13.2 16.6 7.7	54.55 51.56 48.72 42.79 38.43 35.07	26.00 -6.00 42 3.46 1.17 1,50	EGREE ( -22.57 -16.80 -10.51 4.32 18.56 29.80	DEGREE   48.91 46.23 44.94 46.49 49.97 53.50	FT/SEC F 625.8 645.4 656.2 683.3 722.4 781.3	874.9 874.9 859.4 849.8 942.3 997.3	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4	7/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2	571.5 571.5 591.8 615.0 681.8 773.1 864.0	599,2 616,3 636,6 696,6 780,5 866,9
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18,350 19.070 21.140 23.970 26.790 28.860	IN	FT/SEC 1 996.3 993.7 977.4 927.2 0:2,6 627.6 790.5	576.4 576.4 594.8 602.7 648.7 541.5 635.6	577.8 577.8 617.7 644.6 680.0 683.5 677.2	574.6 574.6 594.3 601.6 648.5 641.3 635.6	7/SEC F 811.7 778.3 734.5 630.0 542.6 475.6	-60.1 -4.3 36.4 13.2 16.6 7.7	54.55 51.56 48.72 42.79 38.43 35.07	26,00 -6,00 -,42 3,46 1,17 1,50 ,69	-22.57 -16.80 -10.51 4.32 18.56 29.80	DEGREE   48.91 46.23 44.94 46.49 49.97 53.50	FT/SEC F 625.8 645.4 656.2 683.3 722.4 781.3 816.1	874.9 874.9 859.4 849.8 942.3 997.3 1066.9	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4	7/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8	599.2 616.3 636.6 696.6 780.5 866.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570	IN 16.550 19.110 19.740 21.600 24.200 26.350 28.900 29.600	FT/SEC 1 996.3 993.7 977.4 927.2 0:2.6 627.6 790.5 767.9	576.4 576.4 594.8 602.7 648.7 541.5 635.6 612.6 578.5	577.8 577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4	7/SEC F 811.7 778.3 734.5 630.0 542.6 475.6 445.4	-7/SEC T -60.1 -4.3 36.4 13.2 16.6 7.7 3.9 11.3	54.55 51.56 48.72 42.79 38.43 35.07 34.13	26,00 -6,00 42 3.46 1.17 1,50 .69	-22.57 -16.80 -10.51 4.32 18.56 29.80 36.68 39.13	0EGREE   48.91 46.23 44.94 46.49 49.97 53.50 56.58 58.49	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2	874.9 859.4 849.8 942.3 997.3 1066.9 1112.3	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2	7/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7	599.2 616.3 636.6 596.6 780.5 866.9 932.1
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570	IN	FT/SEC 1 996.3 993.7 977.4 927.2 0:2.6 627.6 790.5 767.9	576.4 576.4 594.8 602.7 648.7 541.5 635.6	577.8 577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1	574.6 574.6 594.3 601.6 648.5 641.3 635.6	7/SEC F 811.7 778.3 734.5 630.0 542.6 475.6	-60.1 -4.3 36.4 13.2 16.6 7.7	54.55 51.56 48.72 42.79 38.43 35.07	26,00 -6,00 -,42 3,46 1,17 1,50 ,69	-22.57 -16.80 -10.51 4.32 18.56 29.80	0EGREE   48.91 46.23 44.94 46.49 49.97 53.50 56.58 58.49	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2	874.9 874.9 859.4 849.8 942.3 997.3 1066.9	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2	7/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7	599.2 616.3 636.6 696.6 780.5 866.9 932.1 954.6
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240	18.580 19.119 19.740 21.600 24.203 26.360 28.900 29.600 30.270	FT/SEC   996.3 996.3 993.7 977.4 927.2 6/2,6 627.6 790.5 767.9 746.5	576.4 594.8 602.7 648.7 541.5 635.6 612.6 576.5 550.7	577.8 577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1 599.3	57/SEC 1 574.6 594.3 601.6 648.5 641.3 035.5 612.6 578.4 550.6	7/5EC F 811.7 778.3 734.5 630.0 542.6 475.6 443.4 444.5	-60.1 -4.3 36.4 13.2 16.6 7.7 3.9 11.3	54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P	EGREE D -6.00 42 3.46 1.17 1.50 .69 .37 1.12 1.30	-22.57 -16.80 -10.51 4.32 18.56 27.80 36.68 39.13 41.45	0EGREE   48.91	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1106.7 1109.9	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2	7/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7	599.2 616.3 636.6 596.6 780.5 866.9 932.1
% SPAN 5 10 15 30 50 70 85 90 96	DIA-1 IN 17,720 16,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240 INCS DEGREE	18.58c 19.119 19.740 21.600 24.203 26.380 28.900 29.600 30.270	FT/SEC   996.3   996.3   993.7   977.4   927.2   627.6   790.5   767.9   746.5   DEV   DEGREE   1	576.4 576.4 594.8 602.7 648.7 541.5 635.6 612.6 576.5 550.7	577.8 577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1 599.3	574.6 574.6 594.3 601.6 648.5 641.3 635.6 612.6 578.4 550.6	775EC F 611.7 778.3 734.5 630.0 542.6 475.6 443.4 444.5 445.2	-60.1 -60.1 -4.3 36.4 13.2 16.6 7.7 3.9 11.3 12.5	54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALE	EGREE D -6.00 42 3.46 1.17 1.50 .69 .37 1.12 1.30 LOSS-P	PEGREE 1 -22.57 -16.80 -10.51 4.32 18.56 29.80 36.68 39.13 41.45 P02/0 P01 SH	48.91 46.23 44.94 46.49 49.97 53.50 56.58 58.49 60.26	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1166.7 1109.9 EFF-P	240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -926.2 -943.3 -963.7 M-2	571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3	599,2 599,2 616,3 636,6 696,6 780,5 866,9 932,1 954,6 976,3
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 15,350 19.070 21.140 23.970 26.790 28.660 29.570 30.240 INCS DEGREE 4.52	18.58c 19.119 19.740 21.600 24.203 26.380 28.900 29.600 30.270 1NCM DEGREE 8.50	996.3 996.3 993.7 977.4 927.2 627.6 790.5 767.9 746.5 DEV DEGREE 1	576.4 576.4 594.8 602.7 648.7 541.5 635.6 611.6 576.5 750.7 TURN () TEGREE	577.8 577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1 599.3 CAMBER DEGREE 62.54	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6	7/SEC F 611.7 778.3 734.5 630.0 542.6 475.6 445.4 444.5 445.2 D-FAC (	-6C.1 -6C.1 -4.3 36.4 13.2 16.6 7.7 3.9 11.3 12.5 OMEGA-B	54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF	EGREE D -6.00 42 3.46 1.17 1.50 .69 .37 1.12 1.30 LOSS-P ROFILE .0379	-22.57 -16.80 -10.51 4.32 18.56 29.80 36.68 39.13 41.45 P02/0 P01 Sh	#8.91 #6.23 #4.94 #6.49 #9.97 53.50 56.58 58.49 60.26	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1	874.9 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1160.7 1109.9 EFF-P STATIC .8095	7/SEC # 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 -8952	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2	571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3 M*-1	FT/SEC 599.2 616.5 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2
% SPAN 5 10 15 30 50 70 85 90 96 % SPAN 5	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,560 29,570 30,240 INCS DEGREE 4,522 3,52	18.58c 19.119 19.740 21.600 24.200 26.350 28.900 29.600 30.270 1NCM DEGREE 5.50	FT/SEC   996.3 996.3 993.7 977.4 927.2 6.27.6 627.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52	576.4 576.4 594.8 602.7 541.5 635.6 612.6 576.5 TURN 1266EE 1 60.55	577.8 577.8 617.7 644.6 680.0 683.5 677.2 654.4 626.1 599.3 CAMBER DEGREE 62.54 59.56	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6 50L1DTY	7/SEC F 811.7 778.3 734.5 636.0 542.6 475.6 443.4 4445.2 D-FAC (	-60.1 -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 PMEGA-B	54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTAL9	EGREE D -6.00 42 3.46 1.17 1.50 .69 .37 1.12 1.30 LOSS-P ROFILE .0379 .0444	PEGREE 1 -22.57 -16.80 -10.51 4.32 18.58 27.80 36.68 39.13 41.45 PO2/0 PO1 SH .9269	48.91 46.23 44.94 46.49 49.97 53.50 56.58 58.49 60.26	625.8 645.4 656.4 663.3 722.4 781.3 816.1 807.2 800.1	T/SEC F 874.9 859.4 849.3 997.3 1066.9 1112.3 1106.7 1109.9 EFF-P STATIC .78095	7/SEC 6 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.1 M-1 .8952 .8920	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.7 M-2 .4951 .5102	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3 M*-1	599,2 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240 INCS DEGREE 4,52 3,52 2,70	IN 16.58c 19.110 19.740 21.600 24.203 26.380 28.900 30.270 INCN DEGREE 8.50 7.77 7.03	FT/SEC   996.3 993.7 977.4 927.2 6.2.6 827.6 790.5 767.9 746.5 DEV DEGREE   10.49   15.52 16.69	7/5EC   576.4   576.4   594.8   602.7   648.7   641.5   635.6   576.5   560.7   TURN   () EGREE   60.55   51.26   45.26	577.8 577.8 617.7 644.6 680.0 683.5 677.2 654.4 626.1 599.3 CAMBER DEGREE 62.54 59.56	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6 50L1DTY	##5.2 D-FAC (6227 .5630	-60.1 -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1605	54.55 54.55 51.56 48.72 42.79 36.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .C379 .C452	DEGREE D -6.0042 3.46 1.17 1.50 .69 1.12 1.30 LOSS-P ROFILE .0379 .0452	PEGREE 1 -22.57 -16.80 -10.51 4.32 18.56 27.80 36.68 39.13 41.40 PO2/0 PO1 SH .9347 .9347 .9302	#8.91 #6.23 #4.94 #6.49 #5.50 56.58 58.49 60.26 #EGA-B IOCK .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL S	874.9 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1160.7 1109.9 EFF-P STATIC .8095	7/SEC # 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 -8952	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2	571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3 M*-1	599.2 599.2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 IN 17,720 16,350 19,070 21,140 23,970 26,790 29,570 30,240 INCS DEGREE 4,52 3,52 2,70 2,20 1	IN 16.58c 19.119 19.740 21.600 24.200 26.3800 29.600 30.270 INCN DEGREE 6.50 7.77 7.03 5.07	FT/SEC   996.3 996.3 993.7 927.4 927.2 6.27.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.69 15.17	576.4 576.4 594.8 602.7 648.7 741.5 635.6 576.5 550.7 TURN (2000) 2000,55 51.96 45.26	57.6 577.8 617.8 644.6 680.0 683.5 677.4 626.1 599.3 CAMBER 52.54 59.56 57.05 57.05	574.6 574.6 594.3 601.6 648.5 641.3 612.6 578.4 550.6 50L1DTY 2.1077 2.0304 1.9491 1,7552	7/SEC F 811.7 778.3 734.5 636.0 542.6 475.6 443.4 4445.2 D-FAC (	T/SEC T -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 PMEGA-B .1605 .1605 .1706 .0708	54.55 54.55 51.56 48.72 42.79 36.43 35.97 34.13 35.39 36.61 LOSS-P TOTALF .0379 .0444 .04202	EGREE D -6.00 42 3.46 1.17 1.50 .69 .37 1.12 1.30 LOSS-P ROFILE .0379 .0444	PEGREE 1 -22.57 -16.80 -10.51 4.32 18.58 27.80 36.68 39.13 41.45 PO2/0 PO1 SH .9269	#8.91 #6.93 #4.94 #6.#9 #9.97 55.56 56.58 56.58 60.26 MEGA-B GOCK .0000 .0000	625.8 645.4 656.4 663.3 722.4 781.3 816.1 807.2 800.1	7/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1106.7 1109.9 EFF-P STATIC .8095 .7749	7/SEC 1 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8766	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3 -963.7 M-2 .4951 .5102 .5179	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3 M·-1 .5667 .5831	599.2 599.2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2
% SPAN 5 10 15 30 50 70 85 90 96 % SPAN 5 10	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240 INCS DEGREE 4,52 3,52 2,70	IN 16.58c 19.119 19.740 21.600 24.284 26.900 29.600 30.270 INCN DEGREE 6.50 7.77 7.03 5.77	FT/SEC   996.3   996.3   993.7   927.2   0.2.6   627.6   790.5   767.9   746.5   DEV   DEGREE   10.49   15.52   16.69   15.17   12.24	7/5EC   576.4   576.4   594.8   602.7   648.7   641.5   635.6   576.5   560.7   TURN   () EGREE   60.55   51.26   45.26	577.8 617.7 644.6 680.0 683.6 677.2 554.4 626.1 599.3 CAMBER 52.54 62.54 59.56 57.05 51.72	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6 50L1DTY	775EC F 511.7 778.5 630.0 542.6 475.6 445.2 D-FAC 6227 .5930 .4875	T/SEC T -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 PMEGA-B .1605 .1605 .1706 .0708	54.55 54.55 51.56 48.72 42.79 36.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .C379 .C452	EGREE D -6.0042 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0444 .0452 .0202	PEGREE 1 -22.57 -16.80 -10.51 4.32 18.56 2.780 36.68 39.13 41.45 P02/0 P01 SH .9347 .9269 .9302 .9742	#8.91 #6.93 #4.94 #6.#9 #9.97 55.56 56.58 56.58 60.26 MEGA-B GOCK .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL .0000 .0000	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1106.7 1109.9 EFF-P STATIC .8095 .7805 .7749 .8891	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8766 .8301 .7733	-T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3 -963.7 M-2 .4951 .5179 .5616 .5558	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5906 .6121	599.2 599.2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9268
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240 INCS DEGREE 4,52 3,52 2,70 -1.04	IN 16.580 19.119 19.740 21.600 24.203 26.380 29.690 30.270 INCM DEGREE 8.50 7.77 7.03 5.07 9.45 3.65	FT/SEC   996.3 993.7 977.4 927.2 8:27.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.69 15.17 12.24 13.59	575.6 f 576.4 594.8 602.7 648.7 741.5 635.6 612.6 576.5 750.7 TURN 200.55 51.96 45.26 41.63	577.8 577.8 617.7 644.6 680.0 683.5 677.2 626.1 599.3 CAMBER 52.54 59.05 51.72 44.73 45.28	574.6 574.6 594.3 601.6 648.5 641.3 635.6 612.6 578.4 550.6 50.1DTY 2.1077 2.0304 1.9491 1,7552 1.5493 1.3670	778-5 811.7 778-5 630.0 542.6 445.6 445.2 D-FAC .6227 .5914 .4678 .4878 .4878	T/SEC I -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1605 .1716 .0708 .0434 .0357	54.55 54.55 51.56 48.72 42.79 35.43 35.97 34.13 35.39 36.61 LOSS-P TOTALF .C379 .C452 .C202 .C143 .D198	-6.00 42 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0444 .0452 .0202 .01407	PEGREE 1-22.57 -16.80 -10.58 -10.58 -10.58 -27.80 -36.68 -39.13 -41.45 PO2/O PO1 SH -9347 -9347 -9362 -9742 -9851 -9859	#8.91 #6.29 #6.49 #6.49 #9.97 53.50 56.58 58.49 60.26 MEGA-B IQCK .0000 .0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL S .0000 .0000 .0000 .0000	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1106.7 1109.9 EFF-P STATIC .8095 .7749 .8891 .9169 .8925	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8966 .8301 .7732 .6973	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3 -963.7 M-2 .4951 .5179 .5616 .5558 .5300	571.5 591.5 591.8 615.0 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5867 .6917 .7196	FT/SEC 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9268
% SPAN 5 10 15 30 50 70 85 90 95 \$SPAN 5 10 15 30 70	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,560 29,570 30,240 INCS DEGREE 4,52 2,70 .26 -1.06 -2,45	IN 16.560 19.119 19.740 21.600 24.200 26.384 28.900 29.690 30.270 INCM DEGREE 8.50 7.77 7.03 5.07	FT/SEC   996.3 996.3 993.7 927.2 6.2.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.69 15.17 12.24 13.50 15.41 16.64	T/SEC 1 576.4 594.8 602.7 648.7 741.5 635.6 635.6 576.5 550.7 TURN (2 2 2 3 4 5.26 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	577.8 577.8 617.8 644.6 680.0 683.5 677.2 654.4 599.3 CAMBER 62.54 59.56 57.05 51.72 44.73 44.23 45.96	574.6 574.6 594.3 601.6 648.5 612.6 578.4 550.6 50L1DTY 2.1077 2.0304 1.9491 1.7552 1.3670 1.2554	7/SEC F 511.7 778.5 630.0 542.6 445.6 445.2 D-FAC 6227 .5930 .4875 .4563 .4469 .4712	T/SEC T -6C.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 PMEGA-B .1605 .1604 .17.6 .0708 .0434 .0397 .0559 .0768	54.55 54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .0379 .0444 .0452 .0143 .0143 .0198	EGREE D -6.0042 3.46 1.17 1.50 .69 .37 1.12 1.30 LOSS-P ROFILE .0379 .044 .0452 .0140 .0143 .0198 .0306	PEGREE 1-22.57 -16.80 -10.51 4.32 18.56 2.780 36.68 39.13 41.45 P02/0 P01 SH .9347 .9347 .9362 .9742 .9857 .9857 .9859 .9798	#8.91 #6.99 #6.49 #6.49 #6.49 #5.50 56.58 58.49 60.26 #E6A-B #0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.9 1112.3 1106.7 1109.9 EFF-P STATIC .8095 .7805 .7805 .7849 .8891 .9221 .9169 .8490	T/SEC / 240.2 186.5 -51.8 -230.5 -56.8 -2487.4 -509.2 -530.1 M-1 .8952 .8960 .8766 .8301 .7772 .7336 .6973	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2 -4951 -5102 -5179 -5616 -5558 -5511 -5300 -4981	571.5 571.5 591.8 615.0 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5831 .5906 .6121 .6426 .6917 .71987	FT/SEC 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 M*-2 .7489 .7371 .7303 .8158 .8642 .9268 .9528
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 IN 17,720 18,350 19,070 21,140 23,970 26,790 28,660 29,570 30,240 INCS DEGREE 4,52 2,70 26 -1,04 -2,45 -2,64	IN 16.58c 19.119 19.740 21.600 24.200 26.3890 29.690 30.270 INCM DEGREE 6.50 7.77 7.03 5.07 4.45 3.65 5.11	FT/SEC   996.3 996.3 993.7 927.2 6.2.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.69 15.17 12.24 13.50 15.41 16.64	T/SEC   576.4   576.4   594.8   602.7   648.7   641.5   635.5   560.7   TURN   () EGREE   60.55   51.26   41.63   36.93   34.35   33.76	577.8 577.8 617.8 644.6 680.0 683.5 677.2 654.4 599.3 CAMBER 62.54 59.56 57.05 51.72 44.73 44.23 45.96	574.6 574.6 594.3 601.6 648.5 641.3 635.6 612.6 578.4 550.6 50.1DTY 2.1077 2.0304 1.9491 1,7552 1.5493 1.3670	FT/SEC F 811.7 778.3 734.5 630.0 542.6 445.6 445.4 444.5 445.2 D-FAC ( .6227 .5914 .5630 .4875 .4563 .4469	T/SEC I -60.1 -4.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1605 .1716 .0708 .0434 .0357	54.55 54.55 51.56 48.72 42.79 35.43 35.97 34.13 35.39 36.61 LOSS-P TOTALF .C379 .C452 .C202 .C143 .D198	-6.00 42 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0444 .0452 .0202 .01407	PEGREE 1-22.57 -16.80 -10.51 4.32 18.56 2.780 36.68 39.13 41.45 P02/0 P01 SH .9347 .9347 .9362 .9742 .9857 .9857 .9859 .9798	#8.91 #6.29 #6.49 #6.49 #9.97 53.50 56.58 58.49 60.26 MEGA-B IQCK .0000 .0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL S .0000 .0000 .0000 .0000	T/SEC F 874.9 859.4 849.8 942.3 997.3 1066.7 1112.3 1106.7 1109.9 EFF-P STATIC .8095 .7749 .8891 .9221 .9169 .8925 .8490	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8966 .8301 .7732 .6973	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -928.2 -943.3 -963.7 M-2 .4951 .5179 .5616 .5558 .5300	571.5 591.5 591.8 615.0 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5867 .6917 .7196	FT/SEC 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9268
% SPAN 5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	DIA-1 IN 17,720 16,350 19,070 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 4,52 3,52 2,70 -2,45 -1,04 -2,45 -2,464 -1,49	IN 16.580 19.119 19.740 21.600 24.200 26.380 29.600 30.270 INCM DEGREE 8.50 7.77 7.03 5.07 4.55 3.86 5.11 6.19	FT/SEC   996.3 996.3 993.7 927.2 6.2.6 790.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.69 15.17 12.24 13.50 15.41 16.64	T/SEC   576.4	577.8 617.7 644.6 680.0 683.5 677.2 554.4 626.1 599.3 CAMBER 59.56 57.05 51.72 44.73 45.28 45.96	574.6 574.6 594.3 601.6 648.5 641.3 635.6 612.6 578.4 550.6 50.1DTY 2.1077 2.0304 1.9491 1.7552 1.3670 1.2967 1.2554 1.2271	7/SEC F 811.7 778.5 630.0 542.6 445.2 445.2 D-FAC .6227 .5914 .45630 .44693	T/SEC I -60.1 -40.3 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1716 .0708 .0434 .0529 .0768 .0849 EFF-P	54.55 54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .0379 .0444 .0452 .0143 .0143 .0198	EGREE D -6.6042 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0452 .0202 .0140 .0143 .0198 .0306 .0346	PEGREE 1-22.57 -16.80 -10.58 -10.58 -10.58 -2.80 36.68 39.13 41.45 P02/0 P01 Sh .9347 .9347 .9347 .9362 .9742 .9857 .9857 .9859 .9789	#8.91 #6.93 #6.49 #6.49 #9.97 53.50 56.58 58.49 60.26 MEGA-B MCCK .0000 .0000 .0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	7/SEC F 874.9 854.9 849.8 942.3 997.3 1066.7 1112.3 1166.7 1109.9 EFF-P STATIC .8095 .7749 .8891 .9215 .9216 .8925 .8490 .8384	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8766 .8301 .7732 .6973 .6745	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2 -4951 -5102 -5179 -5616 -5558 -5119 -4981 -4724 TA-2 S	571.5 571.5 591.6 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5867 .5906 .6121 .6426 .6917 .7196 .7087 .6991	599,2 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9528 .9528 .9520 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	DIA-1 IN 17,720 16,350 19,070 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 4,52 3,52 2,70 -2,45 -1,04 -2,45 -2,464 -1,49	IN 16.560 19.119 19.740 11.600 24.200 26.384 28.900 29.600 30.270  INCM DEGREE 8.50 7.77 7.03 5.07 4.45 5.11 6.19 NCUR-1	FI/SEC   996.3 996.3 993.7 977.4 927.2 6.7.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.89 15.17 12.24 17.63 MC CR-1 BM, SEC	576.4 576.4 576.4 594.6 602.7 648.7 741.5 612.6 576.5 750.7 TURN 200.55 51.96 45.26 41.63 34.35 33.76 35.31 40.93 34.35	7/SEC 577.8 617.7 644.6 680.0 683.5 677.2 626.1 599.3 CAMBER 52.54 59.05 51.72 44.73 44.23 45.28 46.76	574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6 50.1DTY 2.1077 2.0304 1.7552 1.7552 1.3570 1.2967 1.2554 1.2271	FT/SEC F 811.7 778.3 734.5 630.0 542.6 475.6 445.4 445.2 D-FAC ( .6227 .5914 .5630 .4875 .4469 .4712 4983	T/SEC I -60.1 -60.1 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1504 .17.6 .0708 .04397 .0509 .0768 .0849	54.55 54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .0379 .0444 .0452 .0143 .0143 .0198	EGREE D -6.6042 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0452 .0202 .0140 .0143 .0198 .0306 .0346	PEGREE 1-22.57 -16.80 -10.58 -10.58 -10.58 -2.80 36.68 39.13 41.45 P02/0 P01 Sh .9347 .9347 .9347 .9362 .9742 .9857 .9857 .9859 .9789	#8.91 #6.93 #6.49 #6.49 #6.49 #9.97 53.50 56.58 58.49 60.26 MEGA-B MCGA-B .0000 .0000 .0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	7/SEC F 874.9 854.9 849.8 942.3 997.3 1066.7 1112.3 1166.7 1109.9 EFF-P STATIC .8095 .7749 .8891 .9215 .9216 .8925 .8490 .8384	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8766 .8301 .7732 .6973 .6745	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2 -4951 -5102 -5179 -5616 -5558 -5119 -4981 -4724 TA-2 S	571.5 591.8 615.0 681.8 773.1 864.0 930.8 953.7 975.3 M·-1 .5667 .5831 .5906 .6121 .6917 .7196 .7087	599,2 599,2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9528 .9528 .9520 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	DIA-1 IN 17,720 16,350 19,070 21,140 23,970 26,790 28,860 29,570 30,240 INCS DEGREE 4,52 3,52 2,70 -2,45 -1,04 -2,45 -2,464 -1,49	IN 16.580 19.119 19.740 21.600 24.203 26.390 29.690 30.270 INCM DEGREE 8.50 7.77 7.03 5.07 4.45 3.65 3.86 5.11 RPM L	FI/SEC   996.3 996.3 993.7 977.4 927.2 6.7.5 767.9 746.5 DEV DEGREE   10.49 15.52 16.89 15.17 12.24 17.63 MC CR-1 BM, SEC	576.4 594.8 602.7 648.7 741.5 635.6 578.5 550.7 TURN 60.55 550.7 TURN 61.93 34.35 33.76 34.35 34.35 35.31 HC/A-I	7/SEC 577.8 617.7 644.6 680.0 683.5 677.2 554.4 620.1 599.3 CAMBER 62.54 57.05 51.72 44.23 45.28 45.96 46.76	574.6 574.6 574.6 594.3 601.6 648.5 641.3 635.5 612.6 578.4 550.6 501.1DTY 2.1077 2.0304 1.9491 1.7552 1.3670 1.2967 1.2967 1.2554 1.2271 PC2, PC1	7/SEC F 811.7 7784.5 630.0 542.6 445.6 445.2 D-FAC ( .6227 .5630 .4853 .4463 .4463 .4463 .4463 .4712 .4983 PFF-AD	T/SEC I -60.1 -60.1 36.4 13.2 16.8 7.7 3.9 11.3 12.5 OMEGA-B .1605 .1604 .17.6 .0708 .0434 .0397 .0529 .0768 .0849 EFF-P	54.55 54.55 51.56 48.72 42.79 38.43 35.07 34.13 35.39 36.61 LOSS-P TOTALF .0379 .0444 .0452 .0143 .0143 .0198	EGREE D -6.6042 3.46 1.17 1.50 .69 37 1.12 1.30 LOSS-P ROFILE .0379 .0452 .0202 .0140 .0143 .0198 .0306 .0346	PEGREE 1-22.57 -16.80 -10.58 -10.58 -10.58 -2.80 36.68 39.13 41.45 P02/0 P01 Sh .9347 .9347 .9347 .9362 .9742 .9857 .9857 .9859 .9789	#8.91 #6.93 #6.49 #6.49 #9.97 53.50 56.58 58.49 60.26 MEGA-B MCCK .0000 .0000 .0000 .0000 .0000 .0000 .0000	625.8 645.4 656.2 683.3 722.4 781.3 816.1 807.2 800.1 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000	7/SEC F 874.9 854.9 849.8 942.3 997.3 1066.7 1112.3 1166.7 1109.9 EFF-P STATIC .8095 .7749 .8891 .9215 .9216 .8925 .8490 .8384	7/SEC / 240.2 186.5 119.5 -51.8 -230.5 -368.4 -487.4 -509.2 -530.1 M-1 .8952 .8952 .8766 .8301 .7732 .6973 .6745	T/SEC F -659.3 -620.6 -600.2 -683.4 -763.7 -859.2 -943.3 -963.7 M-2 -4951 -5102 -5179 -5616 -5558 -5119 -4981 -4724 TA-2 S	571.5 571.5 591.6 681.8 773.1 864.0 930.0 953.7 975.3 M*-1 .5667 .5867 .5906 .6121 .6426 .6917 .7196 .7087 .6991	FT/SEC 599.2 616.3 636.6 696.6 780.5 866.9 932.1 954.6 976.3 N*-2 .7489 .7371 .7303 .8158 .8642 .9268 .9622 .9520 SLANT-2 DEGREE

## PRECEDING PAGE BLANK NOT FILMED.

## APPENDIX 3

Blade-Element and Overall Performance with Support Screen (Distortion Baseline)

	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	_Vy-2	8-1	8-2	8'-1	B*-2_	V'-1	v'-2	VO'-1	_VO	2 0-1	0-2
% SPAN			T/SEC	FT/SEC_							EGREE	DEGREE	TYCEC	FT/SEC	FT/SEC	PT/SE	FT/SEC	FT/SEC
5 10		16+030	449.7					7/2.7		51.54 50.95		-27,47	596.4		-337.6 -362.9			
15		15.790	473.3 485.3				.*	686.6 645.0		45.86		-18.86	622.9	596.0	-390.4	192		
30		19.910	509.8	781.8			<u>•0</u>		.00	42.83	1.2.67	-1.89	693.6		-470.4			
50		23.090	530.7	691.2				432.1	, ōŏ	38,67	47.07	15.73	779.7		-571.1	-162	.1 571.1	594,2
70		26.260	537.6			5c6.3	- 0	357.2		35,14	51.07		856.1		-666.0			
85		28.610	530.5				• 0	324,5	00		54.07	40.34	904.2		-732.2			
90		29.410	534.6					320 • 0		35.20 36.70	54.68	43.90	924.8		-754.5 -775.9			
95	30.130	30,180	532.5	25/11	532.5	422.3		315.4	•40	30010	25.54	47.52	941.1	023.7	-113.			
	INC5	INCM	DEV	TURN	CAMBER	SOLIDTY	D-FAC C	MEGA-B	LUSS-P	LOSS-P	P02/	EFF-P'E	FF-AD	DMEGA+B	M-1	M-2	M*-1	M1-2
% SPAN	DEGREE	EGREE (	EGREE					•	TOTAL	PROFILE			DTAL SI	HOCK'	_			<u>.</u>
5	-4.12	2.79	9.26			2.4315		.2312		.D422	1.3147	. 5785	.8736	•0000		.61		
10	-4.03	2.60	6.56			2,2838		1808	.0359		1.3303		8922	.0000	•4340	• Bu		
15 30	-3.49	2.78	8.03			2.1553	-3005° -3806	1890			1.3334	. 9186 . 9735	9152	.0000	.4449			
50 50	-1.54	3.12 3.43	11.82			1.6897		.0313 .0488	•0138		1.3001	9483	9463	.0000	4867			
70	-18	4,02	12.03		26.99	1.5345	4372	0631	.0174		1.2705		.9145	•0000	4927			
85	.70	4.58	10.39		19.70	1.4421	.4210	.0692	.0183	.p183	1.2622		8970	•0000	.4867			
90	. 54	4.06	11.63		18.34	1.4148		.1195	•0304		1.2409	.8237	.8183	•0000	.4899	.49		
95	,52	3,89	13.36	8.02	17.48	1.3891	.4561	1569	.0381	.03-1	1.2242	.7632	. 7564	•0600	.4880	.45	12 .563	,55 <sub>0</sub> 8
		NCOR-1	WCARes	WC/A-1	Tno/	P02/	EFF-AD	FEE-D							STA=1 5	TAmo	SLANT-1	SI ANT-2
				LBM/SEC		P01	K K	*								_	DEGREE	
				SOFT														
		5897.0	154.17	34.77	1,9826	1.2886	91.008	91.37							5,2	6.0	86.05	<b>95.02</b>
STA	TOR																	
e coan	DIA-1	DIA-2	V-1	V=2	VM-1	2-PV	V0-1	<u>-2</u> زر	<b>5-1</b>	<b>3-</b> 2	B*-1	B'-2	V:-1	V1-2	VU*-1	VU+-1	2 0-1	U=2
% SPAN	IN	IN F	T/SEC 1	FT/SEC	FT/SEC	FT/SEC	FT/SEC F	T/SEC	DEGREE !	DEGREE	EGREE (	DESKEE"F	T/SEC !	TYSEC (	FT/SEC	FT/SEC	FT/SEC	FT/SEC
5	IN 17,720	IN F	828,3	FT/SEC 359.0	FT/SEC 532.1	558.1	FT/SEC F 634,8	7/SEC 28.5	DEGREE !	EGREE 2.90	EGREE (	38.36	1/SEC	716.8	FT/SEC 178.8	FT/5E(	FT/SEC.7 456.0	FT/SEC 478.2
	17,720 18,350	18,580 19-110	828.3 835.6	559.0 577.2	532.1 550.3	550.1 574.8	FT/SEC F 634.8 628.7	7/SEC 28.5 52.1	50,03 48,80	2.90 5.17	EGREE ( -18.57 -15.88	DESKEE F 38.86 37.42	T/SEC !	TYSEC (	FT/SEC 178.8 156.5	FT/SE( -449,	FT/SEC 7 456.0 7 472.2	FT/SEC 478.2 491.8
5 10	17.720 18.350 19.270	IN 18,580 19-110 19-740	828,3	559.0 577.2 593.0	532.1 550.3 570.1	550.1 574.8 590.1	FT/SEC F 634.8 628.7 596.0	7/SEC 28.5	DEGREE ! 50,03 48,50 46,26	2.90 5.17	EGREE (	38.36	7/SEC   561.4 572.3	716.8 716.8 723.7	FT/SEC 178.8 156.5 105.2	FT/SE() -449, -439,	FT/SEC 7 456.0 7 472.2 5 490.8	FT/SEC 478.2 491.8 508.0 555.9
5 10 15	17,720 18,350 19,070 21,140 23,970	18.580 19.110 19.740 21.600 24.200	828,3 835.6 825.0	559.0 577.2 593.0 610.0	532.1 550.3 570.1 610.2	558.1 574.8 590.1 608.0	FT/SEC F 634.8 628.7 596.0	7/SEC 28.5 52.1 59.5	DEGREE ( 50.03 48,80 46.26 39.36 34,55	2.90 5.17 5.76 4.66 5.17	EGREE ( -18.57 -15.88 -10.49 4.01 18.36	DESKEE*F 38.56 37.42 37.24 39.78 43.90	7/SEC   561.4 572.3 580.3 612.9 637.5	715.8 715.8 723.7 741.2 791.3 821.0	778.8 178.8 156.5 105.2 -43.1	FT/CE( +449, +439, -448, -566,	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0	FT/SEC 478.2 491.8 508.0 555.4 622.8
5 10 15 30 50 70	17,720 18,350 19,070 21,140 23,970 26,790	18.580 19.110 19.740 21.600 24.200 26.880	7/5EC 828,3 835.6 825.0 789.7 733.5 681.3	577.2 593.0 577.2 593.0 610.0 593.6 571.9	532.1 550.3 570.1 610.2 603.9 584.4	574.8 590.1 608.0 591.1 571.5	FT/SEC F 634.8 628.7 596.0 500.9 4:6.2 350.1	7/SEC 28.5 52.1 59.5 49.5 53.5 21.8	50.03 48.80 46.26 39.36 34.55	2.90 5.17 5.76 4.66 5.17 2.19	EGREE ( -18.57 -15.88 -10.49 -4.01 18.36 30.10	DEGREETE 38.55 37.42 37.24 39.78 43.90 49.51	T/SEC   561.4 572.3 580.3 612.9 637.5 676.3	T/SEC (716.8 723.7 741.2 791.3 821.0 880.7	778.8 178.8 156.5 105.2 -43.1 -200.7	FT/SE( +449, +439, -566, -569,	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0 3 616.9	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	7/5EC 828,3 835.6 825.0 789.7 733.5 681.3	577.2 593.0 577.2 593.0 610.0 593.6 571.9 559.5	57/SEC 532.1 550.3 570.1 610.2 603.9 584.4 570.2	558.1 574.8 590.1 608.0 591.1 571.5	FT/SEC F 634.8 628.7 596.0 500.9 4:6.2 350.1	7/SEC 28.5 52.1 59.5 49.5 53.5 21.8	50.03 48.80 46.26 39.36 34.55 30.92	2.90 5.17 5.76 4.60 5.17 2.19	EGREE ( -18.57 -15.88 -10.49 -4.01 18.36 30.10	DEGREET   38.56   37.24   39.78   43.90   49.51   52.84	7/SEC   561.4 572.3 580.3 612.9 637.5 676.3 709.1	T/SEC (716.8 723.7 741.2 791.3 821.0 880.7 926.3	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3	FT/CE() -449, -439, -569, -569, -738,	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0 5 616.9 6 689.4	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 7 743.7
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.140 23,970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	7/5EC 828,3 835.6 825.0 789.7 733.5 681.3 654.6 632.2	57/SEC 559.0 577.2 593.0 610.0 593.6 571.9 559.5 527.1	57/SEC 532.1 550.3 570.1 610.2 603.9 584.4 570.2 546.3	574.8 590.1 590.1 608.0 591.1 571.5 559.5 527.0	FT/SEC F 634.8 628.7 596.0 500.9 4:6.2 350.1 321.5 318.1	7/SEC 28.5 22.1 59.5 49.5 53.5 21.8 5.7	50.03 48.80 46.26 39.36 34.55 30.92 29.42	2.90 5.17 5.76 4.66 5.17 2.19 .59	EGREE ( -18.57 -15.88 -10.49 -4.01 16.36 30.10 36.45 39.04	DEGREET   38.55   37.42   39.78   43.90   49.51   52.54   54.97	7/SEC   561.4 572.3 580.3 612.9 637.5 676.3 709.1 703.5	T/SEC (716.8 716.8 723.7 741.2 791.3 821.0 880.7 926.3	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3 -421.2 -442.9	FT/CE()	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0 5 616.9 6 742.0 6 761.0	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23,970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	7/5EC 828,3 835.6 825.0 789.7 733.5 681.3	577.2 593.0 577.2 593.0 610.0 593.6 571.9 559.5 527.1	57/SEC 532.1 550.3 570.1 610.2 603.9 584.4 570.2 546.3	574.8 590.1 590.1 608.0 591.1 571.5 559.5 527.0	FT/SEC F 634.8 628.7 596.0 500.9 4:6.2 350.1 321.5 318.1	7/SEC 28.5 52.1 59.5 49.5 53.5 21.8	50.03 48.80 46.26 39.36 34.55 30.92 29.42	2.90 5.17 5.76 4.60 5.17 2.19	EGREE ( -18.57 -15.88 -10.49 -4.01 18.36 30.10	DEGREE TE 38.55 57.24 59.76 43.59 51 52.84 57	T/SEC   561.4 572.3 580.3 612.9 637.5 676.3 709.1	T/SEC (716.8 716.8 723.7 741.2 791.3 821.0 880.7 926.3	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3	FT/CE()	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0 5 616.9 6 742.0 6 761.0	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7
5 10 15 30 50 70 85 90	17.720 18.350 19.270 21.140 23.970 26.790 28.860 29.570 30.240	IN 18.580 19.119 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	7/5EC 828.3 835.6 825.0 789.7 733.5 681.3 654.6 632.2 608.0	FT/SEC 559.0 577-2 593-0 610-0 593-6 571-9 559-5 527-1 492-6	FT/SEC 532.1 550.3 570.1 610.2 603.9 584.4 576.2 546.3 520.2 CAMBER	FT/SEC 558.1 574.8 590.1 608.0 591.1 571.5 559.5 527.0 492.5	FT/SEC F 634.8 628.7 596.0 500.9 4:6.2 350.1 321.5 318.1	77/SEC 28.5 22.1 59.5 49.5 53.5 21.8 10.6	DEGREE 50.03 48,80 46.26 39.36 34.59 29.42 30.128 LUSS-P	2.90 5.17 5.76 4.66 5.17 2.19 .59 1.10 1.23	EGREE ( -18.57 -15.88 -10.49 4.01 16.36 30.10 36.45 41.69 P02/0	DEGREE 5 38.82 37.42 37.24 43.70 49.54 52.84 57.34 MEGA-B E	T/SEC   561.4 572.3 580.3 612.9 637.5 676.3 709.1 709.5 696.8	T/SEC (716.8 716.8 723.7 741.2 791.3 821.0 880.7 926.3	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3 -421.2 -442.9	FT/CE()	FT/SEC 7 456.0 7 472.2 5 490.8 4 544.0 5 616.9 6 742.0 6 761.0	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7
5 10 15 30 50 70 85 90 95	17,720 18,370 19,270 21,140 23,970 26,790 28,860 29,870 30,240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	7/5EC 828.3 835.6 825.0 789.5 681.3 654.6 632.2 608.0 DEV	FT/SEC 359.0 577.2 593.0 610.0 571.9 559.5 527.1 492.6 TURN DEBREE	FT/SEC 532.1 550.3 570.1 603.9 584.4 570.2 546.3 520.2 CAMBER DEGRSE	FT/SEC 558.1 574.8 590.1 591.1 571.5 527.0 492.5 SOLIDTY	FT/SEC F 634.8 628.7 596.0 500.9 426.9 350.1 321.5 318.1 314.8	7/SEC 28.5 52.1 59.5 49.5 53.5 21.8 5.7 10.1 10.6	DEGREE 50.03 48.80 46.26 39.36 34.55 30.92 29.42 30.22 31.18	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P	EGREE (18.57 -15.88 -10.49 4.01 16.36 30.10 36.45 39.04 41.69 P02 / 0 P01 SM	DE GREET 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	T/SEC   561.4 572.3 580.3 612.9 637.5 676.3 703.5 696.8 FF-AD OTAL	7/SEC (716.8 723.7 741.2 791.3 880.7 926.3 918.2 912.7 EFF-P	FT/SEC 178.8 156.2 105.2 -43.1 -200.7 -339.3 -421.2 -442.9 -463.4	FT/CE( +449) +439; -509; -569; -738; -751; -765; M-2	FT/SEC 7 456. 7 472. 5 490.8 4 544. 6 616. 6 742. 6 761. 7 778. 4 778.	FT/SEC 478.2 491.8 5 508.0 5 555.9 6 622.0 7 743.7 7 743.7 7 779.0
5 10 15 30 50 70 85 90 95	17,720 18,3270 19,270 21,140 23,970 26,790 28,860 29,870 30,240	IN 18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270 INCM DEGREE (	7/5EC 828.3 835.6 825.0 789.7 733.5 681.3 654.6 632.2 608.0 DEV EGREE	FT/SEC 359.0 577.0 593.0 610.0 593.6 571.9 559.5 527.1 492.6 TURN DEGREE 47.13	FT/SEC 532.1 550.3 570.1 603.9 584.4 570.2 546.3 520.2 CAMBER DEGREE 62.55	FT/SEC 558.1 574.8 590.1 608.0 591.1 571.55 559.5 527.0 492.5 SOLIDTY	634.8 634.8 628.7 596.0 500.9 426.2 350.1 321.5 318.1 314.8 D-FAC (	7/SEC 28.5 52.1 59.5 49.5 53.5 21.8 5.7 10.1 10.6	DEGREE 50.03 48.26 39.36 34.55 30.92 29.42 31.18 LUSS-P TOTAL .0317	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P PROFILE	EGREE (1 - 18.57 - 15.88 - 10.49 16.36 16.36 16.45 16.9 16.9 16.9 16.9 16.9 16.9 16.9 16.9	DEGREE F 38.86 37.42 37.24 39.78 43.90 49.51 52.84 57.34 MEGA-B E 0000	T/SEC   561.4 572.3 580.3 612.9 676.3 709.1 703.5 696.8 FF-AD OTAL	7/SEC 8 715.8 723.7 741.3 821.0 880.7 926.3 912.7 EFF-P SYATION	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3 -421.2 -442.9 -463.4 M-1	FT/CE( -449) -439; -448; -569; -738; -751; -768; -768;	FT/SEC 7 456.0 7 470.2 5 490.8 6 544.0 6 689.4 7 72.0 7 742.0 7 778.2 M'-1	FT/SEC 478.2 491.8 5 508.0 5 555.9 6 622.8 6 691.7 7 743.7 7 743.7 7 743.7 7 743.7 0 01.7 0 01.7
5 10 15 30 50 70 85 90 95	17,720 18,350 19,270 21,140 23,970 28,860 29,570 30,240 1NCS DESREE	IN 18.580 19.113 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE [	7/5EC 828.3 835.6 825.0 789.7 733.5 681.3 654.6 638.0 DEV DEFREE 19.40 21.11	FT/SEC 359.0 577.2 593.0 610.0 593.6 571.9 559.5 527.1 492.6 TURN DEGREE 47.13 43.64	FT/SEC 532.1 550.3 570.1 610.2 603.9 584.4 570.2 546.3 520.2 CAMBER DEGREE 62.55 59.58	FT/SEC 558-1 574-8 590-1 608-0 591-1 571-5 557-5 492-5 SOLIOTY 2-1075 2-1075	634.8 634.8 628.0 596.0 500.9 4.6.2 350.1 321.5 318.1 314.8 D-FAC (	7/SEC 28.5 22.1 59.5 49.5 53.5 21.8 5.7 10.6 0MEGA-B	50.03 48,80 46.26 39.36 34.55 30.92 29,42 30.22 11.18 LOSS-P TOTAL 0378	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P PROFILE .0317	EGREE (18.57 - 18.57 - 10.49 1 16.36 30.10 36.45 41.69 P0155 .9515	DEGREE'S 38.86 37.424 39.78 43.90 43.90 52.84 54.97 57.34 MEGA-B T .0000	T/SEC   561.4   572.3   580.9   537.5   676.3   703.5   696.8   FF-AD   0000	7/SEC 8 715-8 723-7 741-3 821-0 880-7 926-3 918-7 912-7 EFF-P STATIC	FT/SEC 178.8 156.5 105.2 -45.1 -200.7 -339.3 -421.2 -442.9 M-1 7.7526	FT/CE( -449) -439; -448; -569; -769; -751; -768; -758; -758; -759; -768;	7 456.(7 472.25 490.8 49	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7 751.7 774.0 M'-2
5 10 15 30 50 70 85 90 95	17,720 18,350 19,370 21,140 23,970 26,790 29,570 30,240 1NCS DEGREE	IN 18.580 19.110 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE (1.40 5.15 4.38	828.3 835.0 789.0 733.3 681.3 654.6 632.2 608.0 DEV 19.40 21.41 21.20	FT/SEC 559.0 577.0 610.0 593.6 571.6 572.5 527.1 492.6 TURN DEGREE 47.13 43.51	FT/SEC 532.1 550.3 570.1 610.2 603.9 570.2 546.3 520.2 CAMBER DEGREE 62.55 59.08	FT/SEC 558-1 574-8 590-1 608-0 591-1 571-5 559-5 527-0 492-5 SOLIDTY 2-1675 2-0297 1-9473	634.8 634.8 628.0 596.0 500.9 426.2 350.5 321.5 318.1 314.8 D-FAC C	7/SEC 28.5 28.5 29.5 49.5 53.5 21.8 5.7 10.1 10.6 0MEGA-B	DEGREE 50.03 48.26 39.36 34.55 30.42 30.22 31.18 LOSS-P TOTAL 0317 0336	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P PROFILE .0317 .0336	EGREE (18.57 - 18.58 - 18.57 - 18.58 - 19.56 - 19.56 - 19.59 - 19.56 - 19.56 - 19.56 - 19.56 - 19.59 -	DEGREE F 38.86 37.42 39.78 43.90 49.51 54.97 57.34 MEGA-B T .0000 .0000	T/SEC 4 561.4 572.3 580.3 6612.9 637.5 676.3 703.5 69-8 FF-AD 0TAL .00000	7/SEC 8 7156.7 7157.7 791.3 821.0 880.7 918.7 918.7 912.7 57.7550	FT/SEC 8 178.8 156.2 -43.7 -200.7 -339.3 -442.9 -463.4 M-1 7.7524	FT/SE( -449 -439 -448 -509 -738 -751 -768 -509 -509 -509 -509 -509 -509 -509 -509	FT/SEC 7 456.(7 472.25 490.8 5 490.8 6 544.(6.3 616.9 9 684.6 9 742.6 7 778.2 M'-1 01 .5094.	FT/SEC 478.2 491.8 5 508.0 5 555.9 6 622.8 7 743.7 7 743.7 7 779.0 M*-2 .0285 7 .0550 8 .0519
5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	17,720 18,350 19,270 21,140 23,970 28,860 29,570 30,240 1NCS DESREE	IN 18.580 19.113 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE [	7/5EC 828.3 835.6 825.0 789.7 733.5 681.3 654.6 638.0 DEV DEFREE 19.40 21.11	FT/SEC 559.0 573.0 610.0 593.6 571.9 559.5 527.1 492.6 TURN 0EGREE 47.13 43.64 40.51 34.71	FT/SEC 532.1 550.3 570.1 610.2 603.9 584.4 570.2 546.3 520.2 CAMBER DEGREE 62.55 59.50 57.08	FT/SEC 558.1 574.8 590.1 608.0 591.1 571.5 557.5 527.0 492.5 SOLIOTY 2.1075 2.0297 1.9473 1.7533	634.8 634.8 628.0 596.0 500.9 4.6.2 350.5 318.1 314.8 0-FAC C	7/SEC 28.5 59.5 49.5 59.5 53.5 21.8 5.7 10.1 10.6 0MEGA-8 .1338 .1542 .1316 .0512	DEGREE 50. U3 46.26 39.36 34.55 29.42 30.22 31.18 LOSS-P TOTAL .0317 .0336 .0166	DEGREE 2.90 5.17 5.17 4.66 5.17 2.19 1.10 1.23 PROFILE .0378 .0336 .0166	EGREE 78 68 58 58 58 58 58 58 58 58 58 58 58 58 58	DEGREE'S 38.86 37.424 39.78 43.901 52.84 54.97 57.34 EGA-B T 0000 0000 0000	T/SEC   561.4   572.3   580.9   537.5   676.3   703.5   696.8   FF-AD   0000	T/SEC 8 715.7 715.7 741.2 791.3 821.0 921.3 918.2 912.7 EFF-P STATIC 7551 7774 8732	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3 -421.2 -442.9 -463.4 M-1 7 .7497 1 .7526 3 .7424 3 .7103 0 .6580	FT/SE( -449, -439, -569, -569, -758, -758, -758, -758, -554, -554, -554,	7 456.(7 472.2 490.8 490.8 490.8 616.3 616	FT/SEC 478.28 491.8 508.0 555.9 622.8 691.7 743.7 751.7 774.0 M'-2 6285 7.6285
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	1N 17.720 18.350 19.70 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE .49 .04	IN 18.580 19.110 19.740 21.600 26.880 28.900 29.600 30.270 INCM EGREE ( 4.38 1.56 51	828.3 828.3 825.0 789.7 733.3 654.6 632.2 608.0 DEV 19.1 12.20 18.63 15.90	FT/SEC 559.0 57.2 593.0 610.0 593.6 571.6 527.1 492.6 TURN 0EGREE 47.13 40.51 34.71 28.73	FT/SEC 532.1 550.1 610.2 603.9 570.2 546.3 520.2 CAMBER 62.55 57.08 51.73 44.25	FT/SEC 558.1 579.1 508.0 591.1 571.5 559.5 527.0 492.5 SOLIOTY 2.1075 2.0297 1.9473 1.7533 1.5869	FT/SEC F 634.8 624.8 624.7 596.0 500.9 4.6.2 350.5 318.1 314.8 D-FAC C .4943 .4945 .3881 .3881 .3338	7/SEC 28.5 28.5 59.5 49.5 59.5 5.7 10.1 10.6 0ME6A-B .1338 .1316 .0812 .0312	DEGREE 50.03 48.26 39.36 34.55 29.42 30.22 31.18 LUSS-P TOTAL .0317 .0336 .0231 .0146	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P PROFILE .0317 .0336 .0231 .0166	EGREE 57 8-88-85 8-18-5-8-9-18-18-8-9-9-18-18-9-9-9-9-9-9-9-9-9	DEGREE F 38.86 37.42 39.78 43.90 49.51 52.51 54.97 57.34 MEGA - B T .0000 .0000 .0000	T/SEC.4 561.4 572.3 612.9 637.3 676.3 709.1 703.5 696.8 FF-AD OTAL .0000 .0000 .0000	T/SEC 87231-07231-07791	FT/SEC 178.8 178.8 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 M-1 7 .7427 5 .7424 5 .7424 1 .7427 1 .7427 2 .6580	FT/SE( -449 -449 -509 -509 -758 -758 -758 -758 -758 -523 -523 -523	FT/SEC 7 456.(7 472.25 490.8	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7 761.7 779.0 M'-2 60285 60350 60519 60
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.300 19.70 21.140 23.970 26.890 29.570 30.240 1NCS DEGREE .49 -3.26 -4.95 -6.61	IN 18.580 19.110 21.600 24.200 26.880 28.900 29.600 30.27y INCM DEGREE ( 4.40 5.55 -55 -84	828.3 825.6 789.7 733.5 661.3 654.6 652.2 608.9 DEV EGREE 19.40 21.12 18.63 15.96 15.63	FT/SEC 559.0 577.0 593.6 610.0 593.6 571.9 559.5 527.1 492.6 TURN DEGREE 47.13 43.64 40.51 34.71 29.39 28.73 28.83	FT/SEC 532.1 550.1 610.2 603.9 570.2 546.3 520.2 CAMBER 62.55 57.08 51.73 44.75 44.75	FT/SEC 558.1 574.8 590.1 608.0 591.1 571.5 559.5 527.0 492.5 SOLIOTY 2.1075 2.0275 1.7533 1.5487 1.3869	FT/SEC F 634.8 624.8 628.0 596.0 500.9 426.2 3501.5 318.1 314.8 0-FAC C 4983 4752 4445 3861 3493 3493 3538 3538	7/SEC 28.5 S2.1 S9.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2	DEGREE 50.03 48.26 39.36 34.55 29,42 30.28 LUSS-P TOTAL 0317 0336 0231 0166	2.90 5.17 5.76 4.66 5.17 2.19 1.10 1.23 LOSS-P PROFILE .0317 .0336 .0231 .0166 .0185	EGRE-5788-849-8-15-8-4-9-9-15-9-9-15-9-9-15-9-9-15-9-9-15-9-9-15-9-9-9-15-9-9-15-9-9-15-9-9-15-9-9-9-15-9-9-9-15-9-9-9-15-9-9-9-9	DEGREE F 38.56 37.42 37.78 43.90 49.51 52.54 54.97 57.34 MEGA B 1000 0000 0000 0000 0000	T/SEC.4 561.4 572.3 612.9 637.5 676.5 7703.5 696.8 FF-AD 00000 00000 00000 00000	T/SEC 877256.77277491.00 8926.27 9918.00 9918.	FT/SEC 178.8 178.8 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 M-1 7.7424 M-1 7.7424 M-1 0.5880 0.5880 0.7458	FT/CE()	FT/SEC 7 456.(7 472.25 490.8	FT/SEC 478.2 491.8 555.9 622.8 762.8 779.7 779.7 779.0 M'-2 6991.7 779.0 M'-2 6991.7 779.0 M'-2 6991.7 779.0 6991.7 7259.0 6991.7 7259.0 6991.7 7259.0 6991.0
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.370 21.140 23.970 26.860 29.570 30.240 1NCS DEGREE -44 -5.26 -4.95 -7.34	IN 18.580 19.110 21.600 24.200 26.880 29.600 29.600 30.270 INCM DEGREE [ 1.56 -55 -55 -64	828.3 825.6 789.7 733.5 684.3 654.6 632.2 608.0 DEV EGREE 19.40 21.12 18.63 15.96 15.63 16.82	FT/SEC 357-0 577-0 579-0 610-0 593-6 593-6 593-6 492-6 TURN DEGREE 47-13 43-54 40-51 29-39 28-73 29-33 29-32	FT/SEC 532.1 550.3 570.1 610.2 603.9 570.2 546.3 520.2 CAMBER 62.55 59.58 57.03 44.79 44.25 45.96	FT/SEC 558-1 574-8 590-1 508-0 591-1 571-5 557-0 492-5 SOLIDTY 2-1075 2-0297 1-9473 1-5487 1-3867 1-2554	FT/SEC F 634.8 624.8 624.7 596.0 500.9 426.2 350.1 321.5 314.8 D-FAC C 4943 4752 4452 53861 5493 5338 5350 53601	7/SEC 28.5 59.5 49.5 59.5 53.5 5.7 10.1 10.6 0ME8A-B .1342 .1316 .0812 .0515 .0726	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 4.66 7.19 1.10 1.23 PROFILE 0.0336 0.0166 0.01455 0.0289	EGRE.578 6R8.589 140.016 14	DEGREE 5 38.55 37.24 37.27 43.99 43.99 49.54 57.34 49.54 57.34 MEGK 0000 0000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	7/521.07 7/231.07 7/231.07 7/231.07 7/231.07 7/231.07 8/2	FT/SEC 178.8 156.5 105.2 -43.1 -200.7 -339.3 -421.2 -442.9 -463.4 M-1 7.7526 5.7424 7.7526 7.752	FT/CE() -449, -438, -525, -526, -738, -738, -738, -751, -768, -521	FT/SEC 7 456.(7 472.2 5 490.8 6 544.6 6 616.5 6 761.6 7 761.6 7 778.2 M'-1 01 .5094 6 .5258 6 .5328 6 .5328 6 .5328 6 .5328	FT/SEC 478.2 491.8 5 508.0 5 555.9 6 622.8 7 743.7 7 701.7 7 779.0 M'-2 6 628.8 6 628.8 6 725.9 6 725.9 6 725.9 6 725.9 6 8 18 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.300 19.70 21.140 23.970 26.890 29.570 30.240 1NCS DEGREE .49 -3.26 -4.95 -6.61	IN 18.580 19.110 21.600 24.200 26.880 28.900 29.600 30.27y INCM DEGREE ( 4.40 5.55 -55 -84	828.3 825.6 789.7 733.5 661.3 654.6 652.2 608.9 DEV EGREE 19.40 21.12 18.63 15.96 15.63	FT/SEC 559.0 573.6 610.0 593.6 571.9 559.5 527.1 492.6 TURN 0EGREE 47.13 43.64 40.51 34.71 29.39 28.83 29.12	FT/SEC 532.1 550.3 570.1 610.2 603.9 570.2 546.3 520.2 CAMBER 62.55 59.58 57.03 44.79 44.25 45.96	FT/SEC 558.1 574.8 590.1 608.0 591.1 571.5 559.5 527.0 492.5 SOLIOTY 2.1075 2.0275 1.7533 1.5487 1.3869	FT/SEC F 634.8 624.8 628.0 596.0 500.9 426.2 3501.5 318.1 314.8 0-FAC C 4983 4752 4445 3861 3493 3493 3538 3538	7/SEC 28.5 S2.1 S9.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2.5 S2	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 5.17 4.66 5.17 2.19 1.23 1.10 1.23 LOSS-PE 0.0378 0.0231 0.0231 0.0231 0.0231 0.0231	EGRE.578 6R8.589 140.016 14	DEGREE F 38.56 37.42 37.78 43.90 49.51 52.54 54.97 57.34 MEGA B 1000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	7/521.07 7/231.07 7/231.07 7/231.07 7/231.07 7/231.07 8/2	FT/SEC 178.8 178.8 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 M-1 7.7424 M-1 7.7424 M-1 0.5880 0.5880 0.7458	FT/CE() -449, -438, -525, -526, -738, -738, -738, -751, -768, -521	FT/SEC 7 456.(7 472.2 5 490.8 6 544.6 6 616.5 6 761.6 7 761.6 7 778.2 M'-1 01 .5094 6 .5258 6 .5328 6 .5328 6 .5328 6 .5328	FT/SEC 478.2 491.8 5 508.0 5 555.9 6 622.8 7 743.7 7 701.7 2 779.0 M'-2 6 628.8 6 991.7 7 79.0 M'-2 6 6991.7 7 79.0 8 6991.7 7 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.370 21.140 23.970 26.860 29.570 30.240 1NCS DEGREE -44 -5.26 -4.95 -7.34	IN 18.580 19.110 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE ( 4.38 1.56 -551 -84 -04	828.3 825.6 789.7 733.5 681.3 654.6 632.2 608.9 DEV 19.40 121.20 18.63 15.96 15.63 16.62 17.56	FT/SEC 357-0 577-0 579-0 610-0 593-6 593-6 593-6 492-6 TURN DEGREE 47-13 43-54 40-51 29-39 28-73 29-33 29-32	FT/SEC 532.1 550.1 610.2 603.9 570.2 570.2 540.3 520.2 CAMBER GEGRSE 62.55 57.08 51.73 44.25 45.29 46.76	FT/SEC 558-1 574-8 590-1 508-0 591-1 571-5 557-0 492-5 SOLIDTY 2-1075 2-0297 1-9473 1-5487 1-3867 1-2554	FT/SEC F 634.8 624.8 624.7 596.0 500.9 426.2 350.1 321.5 314.8 D-FAC C 4943 4752 4452 53861 5493 5338 5350 53601	7/SEC 28.5 52.1 59.5 53.5 5.7 10.1 10.6 0.6 0.5 13.8 1.3 16.0 0.5 15.0 0.5	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 4.66 7.19 1.10 1.23 PROFILE 0.0336 0.0166 0.01455 0.0289	EGRE.578 6R8.589 140.016 14	DEGREE 5 38.55 37.24 37.27 43.99 43.99 49.54 57.34 49.54 57.34 MEGK 0000 0000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	T/SEC 87 25 25 25 25 25 25 25 25 25 25 25 25 25	FT/SEC 178.8 178.9 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 N-1 7 .7497	FT/SE( -449, -438, -448, -569, -738, -751, -768, -751, -768, -52, -52, -52, -52, -49, -49, -49, -49, -49, -49, -49, -49	FT/SEC 7 456.(7 472.2 5 490.8 6 544.6 6 616.5 6 761.6 7 761.6 7 778.2 M'-1 01 .5094 6 .5258 6 .5328 6 .5328 6 .5328 6 .5328	FT/SEC 478.2 491.8 508.0 555.9 622.8 7 743.7 7 743.7 7 751.7 7 751.7 7 751.7 7 751.7 7 751.0 65919 . 65919 . 7259 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.370 21.140 23.970 26.860 29.570 30.240 1NCS DEGREE -44 -5.26 -4.95 -7.34	IN 18.580 19.110 21.600 24.200 26.880 29.600 30.27y INCM DEGREE [ 4.40 5.15 1.56 55 64 04	7 SEC 828.3 825.9 789.7 733.3 654.6 632.2 608.0 19.40 12.1.2 12.1.2 18.63 15.01 15.63 17.56 wcor-1	FT/SEC 559.0 577.2 593.0 610.0 593.6 593.6 593.6 192.6 TURN 0EGREE 47.13 40.51 34.71 29.39 28.73 29.12 29.95 WC/A-1 LBM/SEC	FT/SEC 532.1 550.1 610.2 603.9 570.2 580.2 CAMBER 62.55 57.08 51.73 44.75 45.29 45.29 45.29	FT/SEC 558.1 579.1 508.0 591.1 571.5 557.0 492.5 SOLIOTY 2.1075 2.0297 1.9473 1.7533 1.7533 1.5487 1.3869 1.2857 1.2857	FT/SEC F 634.8 624.8 628.0 596.0 500.9 426.2 350.5 318.1 314.8 0-FAC C .4943 .4944 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4944 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4943 .4944 .4943 .4943 .4943 .4943 .4943 .4944	7/SEC 28.5 52.1 59.5 53.5 5.7 10.1 10.6 0.6 0.5 13.8 1.3 16.0 0.5 15.0 0.5	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 4.66 7.19 1.10 1.23 PROFILE 0.0336 0.0166 0.01455 0.0289	EGRE.578 6R8.589 140.016 14	DEGREE 5 38.55 37.24 37.27 43.99 43.99 49.54 57.34 49.54 57.34 MEGK 0000 0000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	T/SEC 87 25 25 25 25 25 25 25 25 25 25 25 25 25	FT/SEC 178.8 178.9 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 N-1 7 .7497	FT/SE( -449, -438, -448, -569, -738, -751, -768, -751, -768, -52, -52, -52, -52, -49, -49, -49, -49, -49, -49, -49, -49	7 456.(7 472.25 490.8 49	FT/SEC 478.28 491.8 491.8 555.9 622.8 7 743.7 7 741.7 7 751.7 7 751.7 7 751.7 7 751.7 7 751.9 772.9 8188 6 .8191 6 .81
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.370 21.140 23.970 26.860 29.570 30.240 1NCS DEGREE -44 -5.26 -4.95 -7.34	IN 18.580 19.110 21.600 24.200 28.900 28.900 30.270 INCM EGREE 0 3.45 4.38 1.55 51 84 04 NCM	7/5EC 828.3 835.6 789.7 733.3 654.6 632.2 608.0 DEV 19.40 21.11.21.20 18.63 15.63 15.63 16.82 17.56 WCOREC	FT/SEC 359.0 579.0 593.6 610.0 593.6 571.6 492.6 TURN 0EGREE 47.13 40.51 34.71 28.73 28.73 29.12 9.95 WASEC BM/SEC SGFT	FT/SEC 532.1 550.1 610.2 603.9 570.2 546.3 520.2 CAMBER 0EGRSE 52.55 57.08 51.73 44.25 45.29 45.29 45.29 45.29 45.29 45.29 45.29 45.29 45.29	FT/SEC 558.1 579.1 508.0 591.1 571.5 559.5 527.0 492.5 SOLIOTY 2.1075 2.0297 1.9473 1.7533 1.5487 1.3869 1.2554 PO2/PO1	FT/SEC F 634.8 624.8 624.7 596.0 500.9 4:6.2 350.5 318.1 314.8 D-FAC C .4943 .4752 .445 .3493 .3338 .3326 .3601 EFF-AO	7/SEC 28.5 59.5 49.5 59.5 5.7 10.1 10.6 0ME6A-8 .1316 .0812 .0912 .0425 .0726 .0726 .0726	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 4.66 7.19 1.10 1.23 PROFILE 0.0336 0.0166 0.01455 0.0289	EGRE.578 6R8.589 140.016 14	DEGREE 5 38.55 37.24 37.27 43.99 43.99 49.54 57.34 49.54 57.34 MEGK 0000 0000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	T/SEC 87 25 25 25 25 25 25 25 25 25 25 25 25 25	FT/SEC 178.8 105.2 -43.1 -200.7 -33.3 -421.2 -442.9 -463.4 M-1 7.7424 7.7526 3.7424 7.7526 3.7424 7.7526 3.7424 7.7526 3.7424 7.7526 3.7424 7.5526 7.552	FT/CE() -449, -438, -438, -569, -751, -768, -751, -768, -523, -552, -524	7 456.(7 472.2 490.8 490	FT/SEC 478.2 491.8 508.0 555.9 622.8 691.7 743.7 761.7 779.0 M*-2 .0285 .0350 .0485 .0599 .77911 .8191 .8191 .8191 .8191 .8191 .8191
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	1N 17.720 18.370 21.140 23.970 26.860 29.570 30.240 1NCS DEGREE -44 -5.26 -4.95 -7.34	IN 18.580 19.110 21.600 24.200 28.900 28.900 30.270 INCM EGREE 0 3.45 4.38 1.55 51 84 04 NCM	7/5EC 828.3 835.6 789.7 733.3 654.6 632.2 608.0 DEV 19.40 21.11.21.20 18.63 15.63 15.63 16.82 17.56 WCOREC	FT/SEC 359.0 579.0 593.6 610.0 593.6 571.6 492.6 TURN 0EGREE 47.13 40.51 34.71 28.73 28.73 29.12 9.95 WASEC BM/SEC SGFT	FT/SEC 532.1 550.1 610.2 603.9 570.2 546.3 520.2 CAMBER 0EGRSE 52.55 57.08 51.73 44.25 45.29 45.29 45.29 45.29 45.29 45.29 45.29 45.29 45.29	FT/SEC 558.1 579.1 508.0 591.1 571.5 559.5 527.0 492.5 SOLIOTY 2.1075 2.0297 1.9473 1.7533 1.5487 1.3869 1.2554 PO2/PO1	FT/SEC F 634.8 624.8 624.7 596.0 500.9 4.6.2 350.5 321.5 314.8 D-FAC C 4943 4752 4445 3661 3326 3501 3501 4752 4445 3601 3736	7/SEC 28.5 59.5 49.5 59.5 5.7 10.1 10.6 0ME6A-8 .1316 .0812 .0912 .0425 .0726 .0726 .0726	DEGREE 50.03 48.26 39.36 39.36 39.42 30.42 31.18 LOSS-P TOTAL .0317 .0336 .0146 .0141 .0289	DEGREE 2.90 5.17 4.66 7.19 1.10 1.23 PROFILE 0.0336 0.0166 0.01455 0.0289	EGRE.578 6R8.589 140.016 14	DEGREE 5 38.55 37.24 37.27 43.99 43.99 49.54 57.34 49.54 57.34 MEGK 0000 0000 0000 0000 0000 0000	T/SEC.43 561.45 572.3 6612.9 637.5 6769.1 703.5 696.4 00000 00000 00000 00000 00000 00000	T/SEC 87 25 25 25 25 25 25 25 25 25 25 25 25 25	FT/SEC 178.8 178.9 105.2 -43.1 -200.7 -339.3 -421.3 -442.9 -463.4 N-1 7 .7497	FT/SE( -449, -438, -448, -569, -738, -751, -768, -751, -768, -52, -52, -52, -52, -49, -49, -49, -49, -49, -49, -49, -49	FT/SEC 7 456.( 7 472.2 5 490.8 6 544.( 6 3 616.9 9 689.4 9 742.3 M'-1 01 5094.6 01 517.7 16 525.6 9 573.9 16 528.6 17 628.6 18 628.	FT/SEC 478.28 491.8 491.8 555.9 622.8 7 743.7 7 741.7 7 751.7 7 751.7 7 751.7 7 751.7 7 751.9 772.9 8188 6 .8191 6 .81

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 80% of Design Speed

	<b>-</b>								_		_							
	DIA-1		V-1	V-2	VM-1	VM-2	V0-1	_V0-2	B-1	B-2	B!-1	B!-2	_V*-1		V0 • - 1		U-1	_U-2
% SPAN							FT/SEC I	FT/SEC I									FT/SEC	
5		16.030		841.0	420.4		• 0	689.0	•00	55.00		-29.78					338.0	413.0
10		16.790	426.1		426.1	488.6	• 0	663.8	•00	53.64	40.44	-25.31	559.9	541.0	-363.2	231.	363.2	432.5
15	15.170	17.580	435.3		435.3	494.7	•0	627.4	•00	51.73	41.90	-19.39	585.1	525.2	-390.8	174.	390.8	452.9
30	18.280	19.910	457.2		457.2	491.8	• 0	539.0	.00	47.60	45.81	-2.99	656.5	494.3	-470.9	26.	470.9	512.9
50	22.190	23.090	476.8	658.3	476.8	475.4	• 0		•00	43.75	50.14	16.32	744.5	497.0	-571.7	-139.	5 571.7	594.8
70	25.880	26.260	473.9	599.7	473.9	449.7	• 0		.00	41.40	54.57				-666.7			
85	28.450	28.610	435.3	562.3	435.3	422.3	• 0		.00	41.34	59.32				-732.9			
90	29.320	29.410	472.8	539.1	472.8		.0		.00						-755.3			
95	30.150		479.8	519.3	479.B				.00		58.29				-776.7			
30			7.7.00	02700	77,744	_ 505.5				70102			71310	01012	1141	4000.	·	
	INCS	INCM	DEV	TURN A	AMBER	SOLIDTY	D-EAC	OMFGA-B	1 05540	LOSS-P	P02/	EEE_0	FEE-40	OMEGA-B	M-1	M-2	M*-1	M1-2
% SPAN	DEGREE (			FEBFF	FEBEE	30220.1	U-FAC	OWE GH-D					TOTAL S		M-7	147 - <b>E</b>	M	m 2
5	-2.17	4.74	4.02	AH EY	70.87	2.4320	. 2585	.2599	-0464					•0000	48.4	74.4	. 4920	
10	-1.04	5.61	5.80			2.2845	.3158	1645	.0325		1.3056							
15	39	5.89	7.49															
						2.1559	3692		.0244		1.3308							
30	.60	6.27		48.81		1.9041	.4716				1.3309							
50	1.51	6.50	11.60			1.6903	5167	• 0401	.0114		1.3239							
70	3.30	7.51	11.75			1.5348	.5107		•0110		1.3183	9560			.4322			
85	5.68	9.36	10.98	18.39		1.4421	.4957		•0047		1.3342				•4007	. 494	5 .7800	.4916
90	3.75	7.26	12.43	13.26		1.4148	.5316		8050ء		1.2950				.4321	.472	8150	.4813
95	3.27	6.64	14 - 04	10.10	17.48	1.3891	.5492	.1679	•0403	.0403	1.2791	.7940	.7868	.0000	.4377	. 454	.8339	.4766
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P							5TA-1 5	TA-2 !	SLANT-1	SLANT-2
		RPM LE	BM/SEC L	-BM/SEC	TO1	P01	%	%									DEGREE	
	-			GFT														
		5904.0	139.97	31.56	1.0885	1.3173	92.620	92.94							5.0	6.0	86.05	95.02
	_														.,,,	•••		
STA	TOR																	
												_		_	_			
	DIA-1		V-1	_v <del>-</del> 2	_V:/-1	VM-2	_vc-1	_vo-2	8-1	B-2	B!-1		v!-1		_vo*-1			U=2
% SPAN										DEGREE	DEGREE	DEGREE	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN 5	IN	IN i		FT/SEC I		FT/SEC !	FT/SEC	FT/SEC	DEGREE	DEGREE	DEGREE		FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	
	IN 17.720	IN i	764.4	FT/SEC	FT/SEC	FT/SEC 458.8	FT/SEC	FT/SEC	DEGREE 54.58	DEGREE •11	DEGREE	DEGREE	FT/SEC 473.3	FT/5EC	FT/SEC 166.4	FT/SEC	FT/SEC	FT/SEC
5	17.720 18.350	18.580	764.4 765.0	459.1 473.9	FT/SEC 443.0	FT/SEC 1 458.8 472.0	622.9	FT/SEC 1.1 40.1	DEGREE 54.58 52.64	DEĞREE •11 4.84	DEGREE -20.58	DEGREE 9 46.14 6 43.7	FT/SEC 473.3 483.6	FT/SEC 662.3 653.7	FT/SEC 166.4 135.4	FT/SEC	FT/SEC 6 456. 2 472.	FT/SEC 5 478.7 7 492.3
5 10	17.720 18.350 19.070	18.580 19.110	764.4 765.0 755.2	459-1 473-9 484-1	443.0 464.2 464.5	FT/SEC   458.8 472.0 480.1	FT/SEC 622.9 608.1 579.1	FT/SEC 1.1 40.1 62.1	DEGREE 54.58 52.64 50.08	DEĞREE •11 4•84 7•37	-20.58 -16.26 -10.29	DEGREE 3 46.14 6 43.77 9 42.92	FT/SEC 473.3 483.6 492.9	FT/SEC 662.3 653.7 655.6	FT/SEC 166.4 135.4	FT/SEC -477. -452.	FT/SEC 6 456. 2 472. 4 491.	FT/SEC 5 478.7 7 492.3 3 508.5
5 10 15	17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	764.4 765.0 755.2 722.3	FT/SEC   459-1 473-9 484-1 516-0	FT/SEC 443.0 464.2 464.5 513.6	FT/SEC 458.8 472.0 480.1 513.9	622.9 608.1 579.1	FT/SEC 1.1 40.1 62.1 46.6	DEGREE 54.58 52.64 50.08 44.65	DEĞREE •11 4.84 7.37 5.18	DEGREE -20.58 -16.26 -10.29	DEGREE 3 46.14 5 43.77 9 42.92 5 44.70	FT/SEC 473.3 483.6 492.9 516.0	FT/SEC 662.3 653.7 655.6	FT/SEC 166.4 135.4 87.9	FT/SEC -477. -452. -446.	FT/SEC 6 456. 2 472. 4 491. 9 544.	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5
5 10 15 30 50	17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	764.4 765.0 755.2 722.3 685.6	FT/SEC 459-1 473-9 484-1 516-0 522-5	FT/SEC 443.0 464.2 484.5 513.6 526.8	FT/SEC 458.8 472.0 480.1 513.9 519.9	FT/SEC 622.9 608.1 579.1 507.7 438.6	FT/SEC 1.1 40.1 62.1 46.6 51.8	DEGREE 54.58 52.64 50.08 44.65 39.76	DEGREE •11 4.84 7.37 5.18 5.68	DEGREE -20.58 -16.26 -10.29 4.05 18.7	DEGREE 46.14 43.77 9 42.92 5 44.76 1 47.69	FT/SEC 473.3 483.6 492.9 516.0 557.3	FT/SEC 662.3 653.7 655.6 724.0 772.9	FT/SEC 166.4 135.4 87.9 -36.9 -178.9	FT/SEC -477. -452. -446. -509.	FT/SEC 6 456. 2 472. 4 491. 9 544.6 7 617.	FT/SEC 5 478.7 7 492.3 5 508.5 5 556.5 6 623.4
5 10 15 30 50 70	17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200 25.860	764.4 765.0 755.2 722.3 685.6 647.7	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-1	FT/SEC 443.0 464.2 484.5 513.6 526.8 518.1	458.8 472.0 480.1 513.9 519.9 512.3	622.9 608.1 579.1 507.7 438.6 388.6	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87	DEGREE •11 4.84 7.37 5.18 5.68 3.22	DEGREE -20.58 -16.26 -10.29 4.05 18.7 30.11	DEGREE 46.14 43.77 9 42.92 5 44.70 1 47.69 5 52.32	FT/SEC 473.3 483.6 492.9 516.0 557.3 2 599.9	FT/SEC 662.3 653.7 655.6 724.0 772.9 838.5	FT/SEC 166.4 135.4 87.9 -36.9 -178.9	FT/SEC -477. -452. -446. -509. -571. -663.	FT/SEC 6 456. 2 472. 4 491. 9 544.6 7 617. 6 690.	FT/SEC 5 478.7 7 492.3 5 508.5 5 556.5 6 623.4 2 692.5
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.660	18.580 19.110 19.740 21.600 24.200 25.860 28.900	764.4 765.0 755.2 722.3 685.6 647.7 622.0	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-1 498-3	FT/SEC 443.0 464.2 454.5 513.6 526.8 518.1 501.9	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9 18.0	54.58 54.58 52.64 50.08 44.65 39.76 36.87	DEGREE •11 4.84 7.37 5.18 5.68 3.22 2.07	DEGREE -20.58 -16.26 -10.29 4.05 18.7 30.15	DEGREE 46.14 43.77 42.92 5 44.70 1 47.64 5 52.32 6 55.51	FT/SEC 473.3 483.6 492.9 516.0 557.3 599.9	FT/SEC 662.3 653.7 655.6 724.0 772.9 838.5 880.9	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5	FT/SEC -477. -452. -446. -509. -571. -663. -726.	FT/SEC 6 456.1 2 472.1 4 491.1 9 544.6 7 617.1 6 690.2	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5 5 623.4 2 692.5 5 744.5
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.660 29.570	18.580 19.110 19.740 21.600 24.200 25.860 28.900 29.600	764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3	FT/SEC   459-1   473-9   484-1   516-0   522-5   513-1   498-3   472-5	FT/SEC 443.0 464.2 484.5 513.6 526.8 518.1 501.9 477.1	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1	57/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3	FT/SEC 1 • 1 40 • 1 62 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87 36.21	DEGREE •11 4.84 7.37 5.18 5.66 3.22 2.07 2.17	DEGREE -20.58 -16.26 -10.29 4.05 18.7 30.15 36.86	DEGREE 46.14 43.77 9 42.92 5 44.76 5 52.32 6 55.50 7 57.6	FT/SEC 473.3 483.6 492.9 5516.0 557.3 599.9 627.4 618.0	FT/SEC 662.3 653.7 655.6 724.0 772.9 838.5 880.9	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744.	FT/SEC 6 456.1 2 472.1 4 491.3 9 544.6 7 617.1 6 690.7 6 743.1 5 761.1	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5 5 623.4 2 692.5 5 744.5 8 762.6
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.660 29.570	18.580 19.110 19.740 21.600 24.200 25.860 28.900	764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3	FT/SEC   459-1   473-9   484-1   516-0   522-5   513-1   498-3   472-5	FT/SEC 443.0 464.2 484.5 513.6 526.8 518.1 501.9 477.1	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1	57/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3	FT/SEC 1 • 1 40 • 1 62 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87 36.21	DEGREE •11 4.84 7.37 5.18 5.66 3.22 2.07 2.17	DEGREE -20.58 -16.26 -10.29 4.05 18.7 30.15 36.86	DEGREE 46.14 43.77 9 42.92 5 44.76 5 52.32 6 55.50 7 57.6	FT/SEC 473.3 483.6 492.9 5516.0 557.3 599.9 627.4 618.0	FT/SEC 662.3 653.7 655.6 724.0 772.9 838.5 880.9	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744.	FT/SEC 6 456.1 2 472.1 4 491.3 9 544.6 7 617.1 6 690.7 6 743.1 5 761.1	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5 5 623.4 2 692.5 5 744.5 8 762.6
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 25.880 28.900 30.270	755.0 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.9	FT/SEC 459-1 473-9 464-1 516-0 522-5 513-1 498-3 472-5 451-7	513.6 513.6 513.6 526.8 518.1 501.9 475.4	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3 369.1	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9 18.0 18.0 8.2	54.58 52.64 50.08 44.65 39.76 36.87 37.75	011 4.84 7.37 5.18 5.66 3.22 2.07 2.17	DEGREE -20-58 -16-26 -10-29 -4-09 -18-7 -30-19 -36-86 -39-4	0EGREE 3 46.14 6 43.77 9 42.92 5 44.76 1 47.66 5 52.37 5 52.37 5 57.66 1 59.66	FT/SEC 473.3 483.6 492.9 5 516.0 5 57.3 5 59.9 6 612.0	FT/SEC 662.3 653.7 655.6 724.0 3 772.9 838.5 880.9 881.8	FT/SEC 166.4 135.4 87.9 -36.9 -301.5 -376.2 -396.6 -408.6	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744.	FT/SEC 6 456. 2 472. 4 491. 9 544. 7 617. 6 690. 6 743. 5 761. 7 779.	FT/SEC 5 478.7 7 492.3 5 556.5 5 556.5 6 23.4 2 692.5 5 744.5 8 762.6 0 779.8
5 10 15 30 50 70 85 90	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 25.860 28.900 29.600 30.270	764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-1 498-3 472-5 TURN	FT/SEC 443.0 464.2 484.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3 369.1	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9 18.0 18.0 8.2	54.58 52.64 50.08 44.65 39.76 36.87 36.21 37.75	011 4.84 7.37 5.18 5.66 3.22 2.07 2.17 1.03	DEGREE -20.58 -16.26 -10.29 4.05 18.7 30.15 36.86 39.49 41.9	DEGREE 3 46.14 5 43.77 9 42.92 5 44.76 1 47.69 5 52.33 6 55.51 7 57.66	FT/SEC 473.3 483.6 483.6 557.6 557.6 656.0 612.0 612.0	FT/SEC 662.3 653.7 655.6 724.0 772.9 838.5 880.9 881.8 894.1	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744.	FT/SEC 6 456.1 2 472.1 4 491.3 9 544.6 7 617.1 6 690.7 6 743.1 5 761.1	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5 5 623.4 2 692.5 5 744.5 8 762.6
5 10 15 30 50 70 85 90 95	IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-240 INCS DEGREE	18.580 19.110 19.740 21.600 24.200 25.880 28.900 29.600 30.270	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 DEV	FT/SEC 459-1 473-9 484-1 516-0 513-1 498-3 472-5 451-7 TURN DEGREE	#43.0 #64.2 #84.5 513.6 518.1 501.9 #77.1 #55.4 CAMBER DEGREE	FT/SEC 458.8 472.0 480.1 513.9 512.3 497.9 472.1 451.6 SOLICTY	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3 369.1 370.2	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9 18.0 18.0 0MEGA-B	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87 36.21 37.75 39.11 LOSS-P	DEGREE  •11  4.84  7.37  5.18  5.68  3.22  2.07  2.17  1.03  LOSS-P	DEGREE -20.58 -16.26 -10.29 +0.05 18.01 30.11 36.86 39.4 41.9	DEGREE 46.14 5 43.7 9 42.9 1 47.6 5 52.3 6 55.5 7 57.6 0 59.6 0 MEGA-E	FT/SEC 473.3 483.6 492.9 516.0 516.0 516.0 627.4 618.0 612.0 612.0 612.0	FT/SEC 662.3 653.7 655.6 724.0 3 772.9 838.5 880.9 881.8 894.1 EFF-P STATIC	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6 -408.8	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. M-2	FT/SEC 6 456.1 2 472.1 4 491.1 5 44.6 7 617.1 6 690.2 6 743.1 5 761.1 7 779.1	FT/SEC 5 478.7 7 492.3 3 508.5 5 556.5 5 623.4 692.5 744.5 8 779.8 M1-2
5 10 15 30 50 70 85 90 95	IN 17.720 18.370 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.81	18.580 19.110 19.740 21.600 24.200 25.860 28.900 29.660 30.270	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 586.9 DEV	#59-1 #73-9 #84-1 516-0 522-5 513-1 #98-3 #51-7 TURN DEGREE 54-47	FT/SEC 443.0 464.2 464.2 454.5 513.6 526.1 501.9 477.1 455.4 CAMBER DEGREE 62.53	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLIDTY	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3 369.1 370.2 D-FAC	FT/SEC 1.1 40.1 62.1 46.6 51.8 28.9 18.0 18.0 0MEGA-B	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87 36.21 37.75 39.11 LOSS-P TOTAL	DEGREE  •11  4.84  7.37  5.18  5.66  3.22  2.07  2.17  1.03  LOSS-P PROFILE  •0352	DEGREE -20-58 -16-26 -10-29 4-05 18-7 30-15 36-86 39-47 41-9	DEGREE 3 46-14 43-75 44-76 5 52-35 5 55-51 7 57-66 0MEGA-E	FT/SEC 473.3 483.6 2 492.9 5 516.0 9 557.3 2 399.9 1 618.0 612.0 EFF-AD TOTAL • 0000	FT/SEC 662.3 653.7 655.6 724.0 3 772.9 880.9 880.9 881.8 894.1	FT/SEC 166.4 135.4 87.9 -36.9 -301.5 -376.2 -392.6 -408.8 M-1	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. 3 -771. M-2	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 5 761.5 7 779.0 M*-1 8 .425	FT/SEC 5 478.7 492.3 3 508.5 5 556.5 5 623.4 2 692.5 744.5 8 762.6 0 779.8 M1-2
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.69	18.580 19.110 19.740 21.600 24.200 25.860 28.900 29.600 30.270 INCM DEGREE 8.77 8.95	755c 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV UEGREE 16.59 20.77	#59-1 #59-1 #73-9 #84-1 516-0 522-5 513-1 #98-3 #72-5 TURN DEGREE 54-47 #7-80	FT/SEC 443.0 464.2 484.5 513.6 518.1 501.9 475.4 CAMBER 62.53 59.54	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY	FT/SEC 622.9 608.1 579.1 507.7 438.6 388.6 367.3 369.1 0-FAC	FT/SEC 1-1 40-1 62-1 46-6 51-8 28-9 18-0 8-2 OMEGA-B	DEGREE 54.58 52.64 50.08 44.65 39.76 36.87 36.21 37.11 LOSS-P TOTAL 0352	DEGREE	DEGREE -20.58 -16.26 -10.26 -15.7 -30.15 -36.86 -39.49 -95.5	DEGREE 3 46-11 6 43-7 7 42-9 7 42-9 7 47-6 7 55-5 7 57-6 7 59-6 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	FT/SEC 473.3 483.6 2492.9 557.3 539.9 618.0	FT/SEC 662.3 653.7 724.0 772.9 838.5 880.9 881.8 894.1 EFF-P STATIC 7962	FT/SEC 166.4 136.4 187.9 -36.9 -178.9 -301.5 -376.2 -392.6 -408.8 M-1 .6847	FT/SEC -477. -452. -446. -509. -571. -663. -726. -774. M-2	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.6 7 779.1 M*-1 8 .4251 0 .434	FT/SEC 5 78.7 492.3 3 508.5 5 556.5 6 623.4 2 692.5 5 744.5 8 762.6 779.8 M¹-2 8 .5768 9 .5697
5 10 15 30 50 70 85 96 95 <b>% SPAN</b> 5 10	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.81 4.69 4.09	18.580 19.110 19.740 21.600 25.880 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 8.42	755.2 764.4 765.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV DEGREE 16.59 20.77 22.80	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-1 478-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71	FT/SEC 443-0 464-2 484-5 513-6 526-8 518-11 501-9 477-1 455-4 CAMBER 62-53 59-54 57-03	FT/SEC 458.8 458.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499	FT/SEC 622-9 608-9 579-1 579-1 507-7 438-6 367-3 369-1 370-2 D-FAC .5589 5307	FT/SEC 1-1 40-1 46-6 51-8 28-9 18-0 18-0 8-2 OMEGA-B -1482 -1663 -1663	DEGREE 54.58 52.64 50.08 44.65 39.76 36.21 37.75 39.11 LOSS-P TOTAL .0352 .0412	DEGREE	DEGREE -20.58 -16.26 -10.25 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-6 1 59-66 OMEGA-E 5-10CK 0 -0000 2 -0000	FT/SEC 473.3 473.3 493.6 2 492.9 5 516.0 5 57.3 2 599.3 6 612.0 6 12.0 0 0000 0 0000 0 0000 0 0000	FT/SEC 662.3 653.7 955.6 724.0 772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7962 .7963	FT/SEC 166.4 135.4 87.9 -36.9 -301.5 -376.2 -392.6 -408.8 M-1 .6847 .6752	FT/SEC -477. -452. -446. -571. -571. -663. -726. -771. M-2	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 6 743.1 7 779.1 M'-1 8 .4251 0 .4344	FT/SEC 5
5 10 15 30 50 70 85 90 95 95 10 15 30	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGHEE 4.81 4.69 2.17	18.580 19.110 19.740 21.600 25.880 28.900 29.600 30.270 III.CM DEGREE 8.77 8.95 8.42	755c 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV DEGREE 16.59 20.77 722.80 19.17	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-1 498-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 59.54 57.03 51.70	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 477.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561	FT/SEC 622.9 608.1 579.1 579.1 507.7 438.6 367.3 367.3 370.2 D-FAC .5587 .5387 .5448	FT/SEC 1.1 40.1 46.6 51.8 28.9 18.0 18.0 8.2 OMEGA-B .1482 .1663 .1620 .0902	DEGREE 54-58 52-68 50-08 44-65 39-76 36-21 37-75 39-11 LOSS-P TOTAL 0352 0412	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 2.07 2.17 1.03  LOSS-P PROFILE -0352 -0408 -0412 -0256	DEGREE -20.55 -16.26 -10.26 -13.7 -30.1 -36.8 -13.9 -41.9 -12.9 -12.9 -9600 -9557 -978	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-65 55-51 7 57-61 1 59-61 0 00000 0 000000000000000000000000000	FT/SEC 473.3 473.3 493.6 2 492.9 5 516.0 5 57.3 5 627.4 6 612.0 6 612.0 1 00000 1 000000 1 00000 1 000000 1 000000 1 000000 1 000000 1 000000 1 000000 1 000000 1 00000000 1 0000000000	FT/SEC 662.3 655.6 724.0 6772.9 880.9 881.8 884.1 EFF-P STATIC .7681 .7681 .7681	FT/SEC 165.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6 -408.8 M-1 .6847 .6843	FT/SEC -477. -456. -509. -571. -663. -726. -771. M-2 .399. .4122. .451	FT/SEC 6 456.1 2 472.1 4 491.3 9 544.6 6 743.1 6 743.1 7 779.1 M'-1 8 .4251 0 .4342 4 .442,9	FT/SEC 5
5 10 15 30 50 70 85 90 95 5 10 15 30	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17	IN 18.580 19.110 19.740 21.600 25.850 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 8.42 6.96	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV UEGREE 16.59 20.77 22.80 19.17	FT/SEC 459-1 479-1 516-0 522-5 523-1 498-3 472-5 451-7 TURN DEGREE 54-47 42-71 39-48 34-03	FT/SEC 443.0 464.2 513.6 518.1 501.9 477.1 455.4 CAMBER DEGREE 52.53 51.03 477.1 455.4 455.4 455.4 457.03	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5562	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 369.1 370.2 D-FAC .5877 .5589 .5307 .4186	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0 8 • 2 0MEGA-B • 1482 • 1663 • 1902 • 0574	DEGREE 54.58 52.64 44.65 39.76 36.21 37.75 39.11 LOSS-P TOTAL .0352 .0408 .0412	DEGREE	DEGREE -20.55 -10.25 -10.26 -1	DEGREE 3 46-11 43-7 9 42-9 5 44-7 1 47-6 5 52-3 6 55-5 7 57-6 1 59-6 0 0000 0 0000	FT/SEC 473.3 483.6 492.9 557.3 557.3 627.4 618.0 612.0 0000 0000 0000 0000 0000 0000	FT/SEC 653.7 653.7 655.6 724.0 724.0 738.5 880.9 881.8 894.1 EFF-P 7681 .7681 .7631 .8399 .8794	FT/SEC 155.4 135.4 87.9 -36.7 -178.9 -301.5 -376.2 -392.6 -408.6 M-1 .6847 .6843 .6752	FT/SEC -477. -456. -509. -571. -663. -726. -771. M-2 .399 .413. .451	FT/SEC 6 456.1 4 471.3 9 544.6 6 690.6 6 743.5 5 761.6 7 779.6 M*-1 8 .425 0 .434 4 .442 9 .445 2 .495	FT/SEC 5
5 10 15 30 50 70 85 90 95 95 10 15 30	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.69 4.09 2.17 .31 -64	IN 18.580 19.110 19.740 21.600 25.850 28.900 29.600 30.270 INCM DEGREE 8.75 8.42 6.96 5.79 5.45	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV UEGREE 16.59 20.77 22.80 19.17 16.41	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-3 478-3 472-5 451-7 TURN DEGREE 54-47 42-71 39-48 33-65	FT/SEC 443.0 464.2 513.6 513.6 514.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 57.03 51.70 44.70	FT/SEC 458.8 472.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5502 1.3875	FT/SEC 622.9 608.11 579.1 507.7 438.6 369.6 367.3 369.1 370.2 D-FAC .5587 .5589 .5307 .4648 .4075	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0 8 • 2 OMEGA – B • 1482 • 1663 • 0902 • 0574 • 0529	DEĞREE 54.58 52.64 50.08 44.65 37.75 36.21 37.75 39.11 LOSS-P TOTAL 0352 0256 0142 0190	DEGREE	DEGREE -20.55 -16.25 -1	DEGREE 3 46-11 43-77 9 42-92 5 44-76 1 55-51 7 57-6 0 MEGA-E 1 0000 1 0000 2 0000 2 0000 4 0000 4 0000 4 0000 4 0000 4 0000 4 0000 4 0000 4 0000 6	FT/SEC 473.3 473.3 493.6 2 492.9 5 516.0 5 57.4 6 18.0 6 612.0 6 6	FT/SEC 662.3 655.6 724.0 672.9 838.9 880.9 881.8 894.1 EFF-P STATIC .7621 .7631 .8399 .8399 .8394 .8794	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6 -406.8 M-1 .6843 .6752 .6455	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. -771. M-2 -399 -413 -422 -451 -458	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.6 7 779.1 M*-1 8 .4251 0 .434 4 .442 9 .4601 2 .4531	FT/SEC 5
5 10 15 30 50 70 85 90 95 5 10 15 30	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.81 4.69 4.69 4.69 64	18-580 19-110 19-740 21-600 25-860 28-900 29-660 30-270 INCM DEGREE 8-77 8-95 8-42 5-79 5-86	755c 764.4 765.2 722.3 685.6 647.7 622.0 603.3 586.9 EV DEGREE 16.59 20.77 22.80 19.17 16.41 16.62	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48 34-03 34-03 34-13	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER 62.53 59.54 57.03 51.70 44.22 45.27	FT/SEC 458.8 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 1.9499 1.7561 1.5562 1.3875 1.2869	FT/SEC 622.9 608.1 579.1 579.1 507.7 438.6 367.3 369.1 370.2 0-FAC .5877 .5589 .5307 .4648 .4075 .4170	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 0 18 • 0 8 • 2 0MEGA-B • 1482 • 1620 • 05729 • 05729	DEGREE 54,58 52,68 50,08 44,65 39,76 36,21 37,75 39,11 LOSS-P TOTAL 0352 0408 0184 0184 0184	DEGREE	DEGREE -20.55 -16.26 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 52-31 6 55-51 7 57-6 1 59-66 0 0000 2 0000 2 0000 2 0000 4 0000 7 0000	FT/SEC 473.3 473.3 493.6 2 492.9 5 516.0 5 57.3 2 599.3 6 612.0 0 000.0 0	FT/SEC 662.3 653.7 955.6 724.0 3772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7962 .7631 .8399 .8794 .8794	FT/SEC 166.4 135.4 87.9 -36.9 -178.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5754 .5513	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. -771. M-2 .393 .422 .451 .458 .458	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 6 743.1 7 779.1 M'-1 8 .4251 9 .4601 2 .4951 0 .555	FT/SEC 5
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	IN 18.580 19.110 19.740 21.600 25.880 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 8.42 6.96 5.79 5.45	755.2 764.4 765.0 755.2 722.3 685.6 647.7 623.3 586.9 EEV UEGREE 16.59 20.77 22.80 19.17 16.41 16.02 17.10	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-1 498-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48 34-03 33-65 34-13 35-58	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 59.54 57.03 44.70 44.22 45.27	FT/SEC 458.8 478.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5562 1.3875 1.2869 1.2859	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 389.6 367.3 370.2 D-FAC .5589 .5307 .4186 .4075 .4186	FT/SEC 1 • 1 40 • 1 40 • 6 51 • 8 28 • 9 18 • 0 18 • 0 • 1482 • 1663 • 1620 • 0574 • 0529 • 0681	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -0012 0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 672.9 872.9 880.9 881.8 880.9 881.8 0.7681 0.7681 0.7681 0.7681 0.8749 0.8749 0.8749 0.8749 0.8749 0.8749	FT/SEC 165.4 135.4 87.9 -36.9 -178.9 -301.5 -392.6 -408.6 M-1 .6647 .6752 .6455 .6115 .5754	FT/SEC -477. -456. -509. -507. -663. -726. -771. M-2 .399. .4122 .451 .458. .436. .4	FT/SEC 6 456.1 4 491.3 9 544.6 7 617.1 6 743.5 5 761.6 7 779.1 8 .4251 0 .4342 1 .4421 9 .4601 2 .4951 8 .5355	FT/SEC 5
5 10 15 30 50 70 85 90 95 <b>% SPAN</b> 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 4.81 4.69 4.69 4.69 64	IN 18.580 19.110 19.740 21.600 25.880 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 8.42 6.96 5.79 5.45	755.2 764.4 765.0 755.2 722.3 685.6 647.7 623.3 586.9 EEV UEGREE 16.59 20.77 22.80 19.17 16.41 16.02 17.10	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48 34-03 34-03 34-13	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 59.54 57.03 44.70 44.22 45.27	FT/SEC 458.8 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 1.9499 1.7561 1.5562 1.3875 1.2869	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 389.6 367.3 370.2 D-FAC .5589 .5307 .4186 .4075 .4186	FT/SEC 1.1 40.1 46.6 51.8 28.9 18.0 18.0 8.2 OMEGA-B .1482 .1663 .0902 .0574 .0529 .0659	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -0012 0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 52-31 6 55-51 7 57-6 1 59-66 0 0000 2 0000 2 0000 2 0000 4 0000 7 0000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 672.9 872.9 880.9 881.8 880.9 881.8 0.7681 0.7681 0.7681 0.7681 0.8749 0.8749 0.8749 0.8749 0.8749 0.8749	FT/SEC 165.4 135.4 87.9 -36.9 -178.9 -301.5 -392.6 -408.6 M-1 .6647 .6752 .6455 .6115 .5754	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. -771. M-2 .399. .422. .451. .458. .436.	FT/SEC 6 456.1 4 491.3 9 544.6 7 617.1 6 743.5 5 761.6 7 779.1 8 .4251 0 .4342 1 .4421 9 .4601 2 .4951 8 .5355	FT/SEC 5
5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	IN 18.580 19.110 19.740 21.600 25.860 28.900 29.660 30.270 INCM DEGREE 8.77 8.95 8.42 6.96 5.79 5.45 5.86 7.41 8.72	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 EV DEGREE 16.59 20.77 22.80 19.17 16.41 16.02 17.10	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-3 478-3 472-5 451-7 TURN DEGREE 54-47 42-71 39-48 34-03 35-58 36-03	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 57.03 51.70 44.22 45.27 45.96 46.75	FT/SEC 458.8 470.0 480.1 513.9 519.9 519.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5502 1.3875 1.2869 1.2272	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 369.1 370.2 D-FAC .5877 .5589 .5307 .4648 .4075 .4170 .4485 .4817	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0 8 • 2 0MEGA - B • 1482 • 1663 • 0574 • 0579 • 0659 • 0881 • 0991	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -0012 0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 6772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7681 .7631 .8399 .8794 .8749 .8749 .8749	FT/SEC 166.4 135.4 87.9 -36.9 -376.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5513 .5513	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. -771. M-2 .4151 .458 .458 .412. .436 .412.	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 6 743.1 7 779.1 M*-1 8 4251 0 4344 4 442 9 460 2 495.1 0 .555 2 .545.9	FT/SEC 5
5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	18.580 19.110 21.600 24.200 25.850 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 5.45 5.79 5.45 7.41 8.72 NCOR-1	755.2 764.4 765.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV DEGREE 16.59 20.77 22.80 19.17 16.41 16.02 17.10 17.89 17.36	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-1 498-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48 34-03 33-65 34-13 35-58 36-08	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER 62.53 59.54 57.03 51.70 44.70 45.27 45.96 46.75	FT/SEC 458.8 478.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5562 1.3875 1.2869 1.2859	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 369.1 370.2 D-FAC .5877 .5589 .5307 .4648 .4075 .4170 .4485 .4817	FT/SEC 1 • 1 40 • 1 40 • 6 51 • 8 28 • 9 18 • 0 18 • 0 • 1482 • 1663 • 1620 • 0574 • 0529 • 0681	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -0012 0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 6772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7681 .7631 .8399 .8794 .8749 .8749 .8749	FT/SEC 166.4 135.4 87.9 -36.9 -376.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5513 .5513	FT/SEC -477. -452. -446. -509. -571. -663. -726. -744. -771. M-2 .4151. .422. .451. .458. .448. .4	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 6 743.1 7 779.1 M*-1 8 4251 0 4344 4 442 9 460 2 495.1 0 .555 2 .545.9	FT/SEC 5
5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	18.580 19.110 21.600 24.200 25.850 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 5.45 5.79 5.45 7.41 8.72 NCOR-1	755.2 764.4 765.2 722.3 685.6 647.7 622.0 603.3 586.9 EEV DEGREE 16.59 20.77 22.80 19.17 16.41 16.02 17.10 17.89 17.36	FT/SEC 459-1 473-9 484-1 516-0 522-5 513-3 478-3 472-5 451-7 TURN DEGREE 54-47 42-71 39-48 34-03 35-58 36-03	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER 62.53 59.54 57.03 51.70 44.70 45.27 45.96 46.75	FT/SEC 458.8 470.0 480.1 513.9 519.9 519.9 472.1 451.6 SOLICTY 2.1083 2.0313 1.9499 1.7561 1.5502 1.3875 1.2869 1.2272	FT/SEC 622.9 608.1 579.1 507.7 438.6 367.3 369.1 370.2 D-FAC .5877 .5589 .5307 .4648 .4075 .4170 .4485 .4817	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0 8 • 2 0MEGA - B • 1482 • 1663 • 0574 • 0579 • 0659 • 0881 • 0991	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -01190 -0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 6772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7681 .7631 .8399 .8794 .8749 .8749 .8749	FT/SEC 166.4 135.4 87.9 -36.9 -376.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5513 .5513	FT/SEC -477. -450. -450. -509. -571. -663. -726. -744. -771. M-2 -399. -422. -451. -448. -448. -448. -448. -436. -436. -436. -436. -436. -436. -436. -436.	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.2 6 743.1 7 779.1 M*-1 8 4251 0 4344 4 442 9 460 2 495.1 0 .555 2 .545.9	FT/SEC 5
5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	18.580 19.110 21.600 24.200 25.850 28.900 29.600 30.270 INCM DEGREE 8.77 8.95 5.45 5.79 5.45 7.41 8.72 NCOR-1	755.2 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 DEV DEGREE 16.59 20.77 22.80 19.17 16.02 17.10 17.10 17.89 17.36 WCOR-1	FT/SEC 459-1 473-9 404-1 516-0 522-5 513-1 498-3 472-5 451-7 TURN DEGREE 54-47 47-80 42-71 39-48 34-03 33-65 34-13 35-58 36-08	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER 62.53 59.54 57.03 51.70 44.70 45.27 45.96 46.75	FT/SEC 458.8 470.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0031 1.9499 1.7561 1.5562 1.2869 1.2555 1.2272	FT/SEC 622.9 608.1 579.1 579.1 507.7 438.6 367.3 369.1 370.2 0-FAC .5877 .5589 .5307 .4186 .4075 .4170 .4485 .4817	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 0 18 • 0 18 • 0 8 • 2 0MEGA-B • 1482 • 1663 • 0574 • 0574 • 0881 • 0991 • EFF-P	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -01190 -0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 6772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7681 .7631 .8399 .8794 .8749 .8749 .8749	FT/SEC 166.4 135.4 87.9 -36.9 -376.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5513 .5513	FT/SEC -477. -450. -450. -509. -571. -663. -726. -744. -771. M-2 -399. -422. -451. -448. -448. -448. -448. -436. -436. -436. -436. -436. -436. -436. -436.	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.6 7 779.1 8 .4251 8 .4251 9 .4601 9 .4601 10 .5551 2 .5371 SLANT-1 DEGREE	FT/SEC 5
5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 70	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGHEE 4.69 4.09 2.17 31 64 64	IN 18.580 19.110 19.740 21.600 25.850 28.900 29.600 30.270 INCM DEGREE 78.95 8.42 6.96 5.45 5.86 7.41 8.72 NCOR-1 RPM	T/SEC 764.4 765.0 755.2 722.3 685.6 647.7 622.0 603.3 586.9 DEV DEGREE 16.59 20.77 22.80 19.17 16.41 16.41 16.41 17.89 WCR-1 BM/SEC	TYSEC 459-1 473-9 484-1 516-0 522-5 513-7 498-3 472-5 451-7 TURN DEGREE 54-480 42-71 39-48 34-65 34-13 35-58 86-0 WC/A-1 BM/SEC	FT/SEC 443.0 464.5 513.6 526.8 518.1 501.9 477.1 455.4 CAMBER DEGREE 62.53 57.03 51.70 44.22 45.27 45.96 46.75	FT/SEC 458.8 470.0 480.1 513.9 519.9 512.3 497.9 472.1 451.6 SOLICTY 2.1083 2.0031 1.9499 1.7561 1.5562 1.2869 1.2555 1.2272	FT/SEC 622.9 608.1 579.1 579.1 507.7 438.6 369.6 369.6 369.1 370.2 D-FAC .5589 .5307 .4648 .4186 .4186 .4170 .4485 .4817	FT/SEC 1 • 1 40 • 1 46 • 6 51 • 8 28 • 9 18 • 0 18 • 0 8 • 2 0 MEGA - B • 1482 • 1663 • 0574 • 0579 • 0659 • 0881 • 0991 • EFF-P	DEGREE  54-58 52-68 50-68 44-65 39-76 36-87 37-75 39-11  LOSS-P TOTAL  00152 00408 -01190 -0256 0184 -0190	DEGREE  -11 4.84 7.37 5.18 5.68 3.22 0.7 2.07 1.03  LOSS-P PROFILE 03552 0408 0412 0256 0184 0190 0256	DEGREE -20.55 -16.26 -16.26 -17.30 -1	DEGREE 3 46-14 43-77 9 42-92 5 44-76 1 47-66 5 55-51 7 57-66 0 000000	FT/SEC 473.3 473.3 492.9 557.3 557.3 612.0 612.0 00000 00000 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC 662.3 655.6 724.0 6772.9 838.5 880.9 881.8 894.1 EFF-P STATIC .7681 .7631 .8399 .8794 .8749 .8749 .8749	FT/SEC 166.4 135.4 87.9 -36.9 -376.9 -301.5 -376.2 -392.6 -408.8 M-1 .6843 .6752 .6455 .6115 .5513 .5513	FT/SEC -477. -450. -450. -509. -571. -663. -726. -744. -771. M-2 -399. -422. -451. -448. -448. -448. -448. -436. -436. -436. -436. -436. -436. -436. -436.	FT/SEC 6 456.1 2 472.1 9 544.6 7 617.1 6 690.6 7 779.1 8 .4251 8 .4251 9 .4601 9 .4601 10 .5551 2 .5371 SLANT-1 DEGREE	FT/SEC 5

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR

80% of Design Speed

	014-1	DIA-A	V .	V-2		· · · · · · · · · · · · · · · · · · ·			D	4-2	A		V+-1	\1 • _ 'A	un11	Was-2		
% SPAN	IN	DIA-2	V-1 FT/SEC F	V-2 FT/SEC F	VM-1 FT/SEC F	VM-2 FT/SEC 1	VO-1 FT/SEC F	VD=2 T/SEC (	Ð-1 Degkee i	6-2 DEGREE D	B'-1 EGREE	8'-2 DEGREF'I	FT/SEC F	T/SEC !	VO!-1 FT/SEC !	FT/SEC F	U+1 T/SEC F	U-2 T/SEr
5		0 16.030	342.1	792.9	342.1	405.2	•0	681.5	.00	39.27	44.59	-33.60	480.5	486.6	-337.4	269.3	337.4	412.2
10		3 16 790	367.5	769.9	367,5	421.3	• 0	644.3	.00	56.81		-26.74	516.2		-362.6	212.5	362.6	431.8
15 30		0 17.580 0 19.910	374.5	745.5 692.8	374.5 392.5	437.7		608.8 536.9	.00	54.75 50.79	50.11	-19.98 -3.21	540.B 612.5		-390.1 -470.1	156.7 24.9	390 · 1 470 · 1	452.1 512.0
50		0 23.090		633.1	467.0	429.3	• 0	465.2	.00	47.28	54.48		701.0		-570.6		570.6	543.8
70	25,88	0 26 260	408.8	577.9	408.8	396.7	• 0	420.2	.00	46.68	58.42	32.74	781.2		-665.5		665.5	675.5
85		28.610	399.6	536.1	399.6	344.8	•0	410.4	.00	49.97	61.35	43.33	833.7		-731.0		731.6	735.7
90		0 29.410 0 30.190	402.5	525.2 515.7	402.5	323.0 305.6	•0	413.9 415.4	.0a	52.05 53.65	61.9¢ 62.68	46.69 49.71	854.7 872.7		-754.0 -775.3		754.0 775.3	756.3 776.1
95	30.13	9 300130	700.5	31367	400.5	33340	•0	413.4		33.63	02.00	470/#	0/2./	412.7	-115.3	-360.0	115.3	,,0.1
	INCS	INCM	DEV	TURN C	AMBER S	SOLIDTY	O-FAC O	MEGA-9	LUSS-P	LOSS-P	P02/	EFF-P' E	FF-AD (	MEGA-B	H-1	H-2	M'-1	M • -2
% SPAN	DEGREE	DEGREE	EGREE 3	EGREE	EGREE					ROFILE	P01	TOTAL	OTAL SE		4			
10	3.5		3.17 4.38	78.20 71.36		2.4305	.3082 .3822	.2020	.0449 .0414	.0414	1.3106	.8950 .9022	.8909 .8983	.0000	.3115	•7138 •6915	.4384 .4724	.45A1 .4242
15	3,8		6.92	66.14		2.1536		1502	0328		1.3146	9234	9204	•0000	3408	.6679	4953	4106
30	4.88		10.51	53.31		1.9017	5215	0597	.0157	.0157	1.3287	9613	9597	• 0000	3569	6170	5602	3919
50	5.80		12.08	37.87		1.6885	.5589	.0452	.0128	.0128		.9629	.9614	.0000	,3698	•5602	.6415	.3978
70 85	7.9		12.53	25,68		1.5338	.5715 .6022	.0932	0256		1.3205		•9077.	•0000	3701	•5082	.7137	.4156
90	7.7		13.43	15.21		1.4420	.6204	.1648	+0416 +0490	.0490	1.3102	.8343 .7943	.8278 .7863	•0000	.3637	.4684	•7616 •7787	.4104
95	6		15.56	12.97	17.48	1.3890	6295	.2234	.0520	0520			7616	-0000	3631	4484	7932	4114
		N600 4					~				•		•					
			WCOR-1 BM/SEC L			P02/ P01	EFF-AD	*						5	STA-1 51		ANI-1 S GREE D	
				OFT	· V A	PVI.	<del></del>									DE	ORLE D	EUREE
		5893.0	123.43	27.83	1.0919	1.3199	89.876	85.09							5.0	6.0	86.05	95.02
STA	TOR																	
DIE	lion																	
		DIA-2	V-1	V-2	VM-1	VM-2	V0-1	vo-2	B-1	B-2	B'-1	B1-2	V1		V0'-1		U-1	U-2
% SPAN	IN	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC_	FT/SEC	DEGREE	DEGREE	DEGREE	DEGREE"	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC
5	IN 17,72	IN 20 18.580	FT/SEC 718.1	FT/SEC 402.7	FT/SEC 367,8	FT/SEC 3 400-8	FT/SEC	FT/SEC -34.2	DEGRÉE	DEGREE -4.87	DEGREE -23.6	DEGREE'	FT/SEC 401.6	FT/SEC 650.3	FT/SEC 161.1	FT/SEC 1 =512.1	FT/SEC 455.7	FT/SEC 477.8
	IN 17,7 18.3	IN	718.1 709.7	FT/SEC 402.7 400.3	FT/SEC 367,8 392,5	FT/SEC 3 400.8 399.6	FT/SEC 616.8 591.3	FT/SEC -34.2 15.7	DEGREE 59.19	DEGREE -4.87 2.24	DEGREE -23.6 -16.9	DEGREE 1 51.94 2 49.97	FT/SEC 4 401.6 7 410.4	FT/SEC 650.3	FY/SEC 161.1	FT/SEC	FT/SEC 455.7 471.9	FT/SEC 477.8
5 10 15 30	IN 17,72 18.3 19.07 21.14	IN 20 18-580 50 19-110 70 19-740 10 21-600	FT/SEC 718-1 709-7 696-9 677-5	FT/SEC 402.7 400.3 405.2 456.0	FT/SEC 367,8 392,5 412,6 451.1	FT/SEC 3 400-6 399-6 401-9	FT/SEC 616.8 591.3 561.6 505.3	FT/SEC -34.2 15.7 51.6	DEGREE 59.10 56.4 53.60 48,2	DEGREE 2.24 7.34 7.96	DEGREE -23.6 -16.9 -9.8 4.7	DEGREE' 4 51.91 2 49.93 1 48.60 9 47.46	FT/SEC 401.6 7 410.4 0 419.1 5 453.6	FT/SEC 650.3 621.4 607.7	FY/SEC 161.1 119.1 71.2 -38.3	FT/SEC 1 =512.1 4 =475.8 2 =455.8 3 =492.4	FT/SEC 455.7 471.9 490.4 543.6	FT/SEC 477.8 491.4 507.6 555.5
5 10 15 30 50	IN 17,72 18.3 19,07 21.14 23,97	IN 20 18.580 50 19.110 70 19.740 10 21.600 70 24.200	718.1 709.7 696.9 677.5	FT/SEC 402.7 400.3 405.2 456.0 483.4	FT/SEC 367,8 392,5 412,6 451.1 470.8	FT/SEC 3 400-8 5 399-6 6 401-9 1 451-6 8 481-0	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 447.7	FT/SEC -34.2 15.7 51.6 63.1 48.6	DEGREE 59.19 56.42 53.69 48,2 43.59	DEGREE 2.24 7.34 7.96	DEGREE -23.6 -16.9 -16.9 -9.8 -9.8 4.7	0EGREE' 4 51.94 2 49.93 1 48.60 9 47.46	FT/SEC 401.6 7 410.4 0 419.1 5 453.6 1 500.9	FT/SEC 650.3 621.4 607.7 668.2 748.7	FT/SEC 3 161.1 4 119.4 71.2 -38.3 7 -168.8	FT/SEC 1 =512.1 4 =475.8 2 =455.8 3 =492.4 3 =573.7	FT/SEC 455.7 471.9 490.4 543.6 616.4	FT/SEC 477'.8 491.4 507.6 555.5 622.3
5 10 15 30 50 70	17,77 18.3 19,07 21.14 23,97 26.79	IN 20 18.580 50 19.110 70 19.740 10 21.600 70 24.200	FT/SEC 718.1 709.7 696.9 677.5 649.7	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6	FT/SEC 367,8 392.5 412.6 451.1 470.8	FT/SEC 3 400-8 5 399-6 6 401-9 1 451-6 3 466-8	FT/SEC 3 616.8 591.3 561.6 5 505.3 447,7 410.6	FT/SEC +34.2 15.7 51.6 63.1 48.6	DEGREE 59.19 55.69 48.29 43.59	DEGREE 9 -4.87 2.24 7.34 7.96 5.78 3.45	DEGREE -23.6 -16.9 -9.8 -9.8 4.7 19.6 31.4	0EGREE 4 51.94 2 49.97 1 48.60 9 47.46 5 50.01	FT/SEC 401.6 410.4 0.419.1 5.453.6 1.500.9 4.534.7	FT/SEC 650.3 621.4 607.7 668.2 748.7	FT/SEC 3 161.1 4 119.4 71.2 -38.3 7 -168.8	FT/SEC 1 =512.1 4 =475.8 2 =455.8 3 =492.4 3 =573.7	FT/SEC 455.7 471.9 490.4 543.6 616.4	FT/SEC 477'.8 491.4 507.6 555.5 622.3 691.3
5 10 15 30 50	IN 17,77 18.3 19.07 21.14 23,97 26.79 28,86	IN 20 18.580 50 19.110 70 19.740 40 21.600 70 24.200 90 25.880 50 28.900	FT/SEC 718.1 709.7 696.9 677.5 649.7 580.4	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6	FT/SEC 367,8 392,5 412,6 451,1 470,8 455,8	FT/SEC 3 400-6 5 399-6 6 401-9 1 451-6 3 466-8 7 433-5	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 447.7 410.6 5 405.1	FT/SEC -34.2 15.7 51.6 63.1 48.6 28.1	DEGREE 59.1 56.4 53.6 48.2 43.5 42.0	DEGREE 2.24 7.34 7.96 5.78 2.59	DEGREE -23.6/ -16.9/ -9.8 4.7/ 19.6/ 31.4/ 39.0/	OEGREE 4 51.97 4 49.97 4 48.60 9 47.46 5 54.80 4 59.0	FT/SEC 401.6 7 410.4 0 419.1 5 453.6 1 500.9 4 534.7 7 535.3 5 531.7	FT/SEC 650.3 621.4 607.7 668.2 748.7 811.1 843.6	FT/SEC 3 161.1 119.4 71.2 -38.3 7 -168.8 1 -278.3 5 -337.1	FT/SEC 1 =512.1 4 =475.8 2 =455.8 3 =492.4	FT/SEC 455.7 471.9 490.4 543.6 616.4 688.9 742.2	FT/SEC 477'.8 491.4 507.6 555.5 622.3 691.3
5 10 15 30 50 70 85	IN 17,72 18.35 19.07 21.14 23,97 26,79 28,86 29,57	IN 20 18.580 50 19.110 70 19.740 10 21.600 70 24.200	FT/SEC 718-1 709-7 696-9 677-5 649-7 580-4 572-2	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6 434.0 423.8	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.8 415.7	FT/SEC 3 400-8 5 399-6 401-9 451-6 481-0 3 466-8 7 433-5 423-6	FT/SEC 3 616.8 591.3 561.6 5 505.3 447.7 410.6 409.6	FY/SEC -34.2 15.7 51.6 63.1 48.6 28.1 19.6	DEGREE 59.19 56.49 53.69 48.29 43.59 42.09 44.20	DEGREE 2.24 7.34 7.96 5.78 2.59 2.59	DEGREE -23-64 -16-9 -9-8 4-76 19-6 31-4 39-0 41-3	DEGREE 4 51.91 2 49.97 1 48.60 9 47.46 5 50.01 0 54.84	FT/SEC 401.6 7 410.4 0 419.1 5 453.6 1 500.9 4 534.7 7 535.3 5 531.7	FT/SEC 650.3 621.4 607.7 668.2 748.7 811.1 843.6	FT/SEC 161.1 119.4 71.2 -38.3 7-168.6 1-278.3 -337.1 -350.4	FT/SEC 1 =512.1 4 =475.8 2 =455.8 3 =492.4 3 =573.7 5 =663.1 1 =723.6	FT/SEC 455.7 471.9 490.4 543.6 616.4 688.9 742.2 760.4	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2
5 10 15 30 50 70 85 90	17,72 18.3 19.07 21.14 23,97 26,79 28,86 29,57 30,24	IN 20 18.586 50 19.110 70 19.746 40 21.696 70 24.206 90 28.896 70 28.906 70 29.696 49 50.276	FT/SEC 718.1 709.7 696.9 677.5 649.7 649.7 649.7 550.4 572.4 5565.5	FT/SEC 402.7 400.3 405.2 456.0 483.4 457.6 434.0 423.0 417.0	FT/SEC 367,8 392,5 412,6 451,1 470,8 455,8 455,8 399,8	FT/SEC 3 400.8 5 399.6 401.9 451.6 3 481.6 3 466.8 4 423.8 4 423.8 4 423.8 4 423.8	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 447.7 3 405.1 409.6 414.3	FT/SEC +34-2 15-3 51-6 63-1 48-6 28-1 13-9	DEGREE 39.19 36.49 53.69 48.23 43.20 44.20 45.71 47.1	DEGREE 1 -4.87 2 -2.24 7 -34 7 -96 5 -76 2 -2.59 1 -80	DEGREE -23-6 -16-9 -9-8 -4-7 19-6 31-4 39-0 41-3 43-3	DEGREE 4 51.94 2 49.93 1 48.60 9 47.46 5 50.01 5 50.01 6 6 1.65	77 401.6 77 410.4 10.4 153.6 1 500.7 7 535.7 5 529.3	FT/SEC 650.3 621.4 607.7 668.2 748.7 811.9 8 859.0	FY/SEC 161.1 119.1 71.2 -38.3 1-168.8 1-278.3 1-350.3 1-363.3	FT/SEC 1 -512.1 4 -475.8 2 -455.8 3 -492.4 3 -573.7 3 -63.1 1 -723.6 9 -747.3 5 -772.6	FT/SEC 455.7 471.9 490.4 543.6 616.4 688.9 742.2 777.7	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2
5 10 15 30 50 70 85 90	IN 17,72 18.35 19.07 21.14 23,97 26,95 29.57 30.24	IN 20 18.580 50 19.110 70 19.740 40 21.600 70 24.200 90 26.880 50 28.900 70 29.600 40 30.270	FT/SEC 718.1 709.7 696.9 677.5 649.7 613.5 580.4 572.2 565.5	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6 423.8 417.0	FT/SEC 367,8 392,5 412,6 451,1 470,8 455,8 415,7 384,8 CAMBER	FT/SEC 3 400.8 5 399.6 401.9 451.6 3 481.6 3 466.8 4 423.8 4 423.8 4 423.8 4 423.8	FT/SEC 3 616.8 591.3 561.6 5 505.3 447.7 410.6 409.6	FT/SEC -34-2 15-7 51-6 63-1 19-6 13-9 5-6	DEGREE 59.19 56.42 53.69 43.59 42.02 44.20 45.71 47.11	DEGREE -4.87 2.24 7.34 7.36 5.78 2.34 2.59 1.88 80	DEGREE -23-6 -16-9 -9-8 -4-7 19-6 31-4 31-4 43-3	DEGREE 4 51.94 2 49.91 1 48.60 9 47.46 50.01 6 59.04 6 61.65 0 MEGA = 8	7 401.6 7 419.1 6 419.1 1 500.9 4 534.7 5 531.7 5 52.8 6 FF - AD	FT/SEC 650.3 621.4 607.7 668.2 748.7 811.9 811.9 845.0 878.0	FT/SEC 161.1 119.4 71.2 -38.3 7-168.6 1-278.3 -337.1 -350.4	FT/SEC 1 -512.1 4 -475.8 2 -455.8 3 -492.4 3 -573.7 5 -663.1 1 -723.6 3 -747.3	FT/SEC 455.7 471.9 490.4 543.6 616.4 688.9 742.2 760.4	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2
5 10 15 30 50 70 85 90	17,74 18.35 19.07 21.14 23.97 26.79 28.86 29.57 36.24	IN 20 18.580 50 19.110 70 19.740 10 21.600 70 24.200 90 28.890 70 29.600 40 30.270 5 INCM	FT/SEC 718.1 709.7 696.9 696.9 649.7 613.5 580.4 572.2 565.5	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6 434.0 423.8 417.0 TURN DEGREE	FT/SEC 367,8 392,5 412,6 451,1 451,1 455,8 415,7 399,4 384,8	FT/SEC 3 400.8 5 399.6 6 401.9 1 451.6 3 466.8 7 433.8 4 423.6 5 417.0 SOLIDTY	FT/SEC 3 616.8 5 591.3 5 505.5 6 505.3 447.7 3 410.8 5 405.1 6 409.6 414.3	FT/SEC -34-2 15-7 51-6 63-1 19-6 13-9 5-6	DEGREE 59.19 56.42 53.69 43.59 42.02 44.20 45.71 47.11	DEGREE -4.87 2.24 7.34 7.36 3.45 2.59 1.88 80 LOSS-P	DEGREE -23.66 -16.9 -9.8 -4.76 19.6 31.4 39.6 43.3 43.3 P02/	DEGREE 4 51.91 2 49.60 9 47.40 5 50.41 5 59.01 6 61.61	7 401.6 7 410.1 6 419.1 7 530.9 8 534.7 7 535.7 5 529.3 8 FFF AD	FT/SEC 650.3 621.4 667.7 668.7 748.7 811.9 843.6 878.6 878.6	FY/SEC 3 161.1 119.1 71.2 -38.1 -168.1 -278.1 -350.1 -350.1 -363.1	FT/SEC 1 -512.1 4 -475.8 2 -455.8 3 -492.4 3 -573.7 5 -663.1 1 -723.6 9 -747.3 5 -772.6 M-2	FT/SEC 455.7 471.9 490.4 543.6 616.4 688.9 742.2 760.4 777.7	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2
5 10 15 30 50 70 85 90 95	IN 17,72 18.35 19.07 21.14 23,97 26,95 29.57 30.24	IN 20 18.580 70 19.110 70 19.740 60 21.600 70 24.200 90 26.880 60 28.900 70 29.600 60 30.270 5 INCM	FT/SEC 718-1 709-7 696-9 677-5 649-7 613-5 580-4 572-2 565-5 DEV DEGREE 11-61	FT/SEC 402.7 400.3 405.2 456.0 487.6 434.0 423.8 417.0 TURN DEGREE 64.06	FT/SEC 367,8 392,6 451,1 470,8 455,7 384,8 CAMBER DEGREE 59,51	FT/SEC 3 400.8 3 491.9 4 401.9 4 401.9 4 401.9 4 401.9 4 401.9 4 401.9 4 401.9 5 401.9 5 401.9 5 401.9 6 40	FT/SEC 3 616.8 3 591.3 5 591.6 5 505.3 447.7 3 410.6 405.1 409.6 414.3 ( D=FAC	FT/SEC -34-2 15-7 51-6 63-1 19-8 13-9 5-6	DEGREE 59.1 55.4 55.4 45.2 47.1 47.1 LOSS-F	DEGREE -4.87 2.24 7.34 3.45 3.45 3.45 3.45 4.65 4.65 4.65 4.65 4.65 4.65 4.65 4	DEGREE -23-6 -23-6 -16-9 -19-6 -31-4 -31-3 -951 -951	DEGREE 4 51.94 2 49.96 9 47.46 9 50.01 1 50.01 1 61.65 0 MEGA - B	77 / SE 0 401 · 6 70 · 419 · 1 70 · 419 · 1 70 · 419 · 1 70 · 534 · 3 75 · 535 · 3 75 · 539 · 3 8 · FF - AD - TOTAL	FT/SEC 650.3 621.4 607.7 668.2 748.7 811.9 811.9 845.0 878.0	FY/SEC 161.1 171.2 -38.3 7 -168.8 1 -278.3 -357.3 -353.3 M-1 .6379.6	FT/SEC 1 -512.1 + -475.8 2 -455.8 3 -573.7 5 -663.1 1 -723.6 9 -747.6 M-2 9 .3476	FT/SEC 455.7 471.9 490.4 616.4 688.9 742.2 777.7 M'-1 .3588 .3668	FT/SEC 477.8 491.4 507.6 555.5 622.3 591.3 743.2 761.2 778.4 M*-2
5 10 15 30 50 70 85 90 95 <b>%_SPAN</b> 5 10	IN 17,72 18,07 21,14 23,97 26,86 29,57 30,24 INCS DEGREE 9,2	IN 20 18-580 20 18-580 20 19-110 21-500 20 20 20 20 20 20 20 20 20 20 20 20 2	FT/SEC 718.1 709.7 696.9 677.5 649.7 580.4 572.2 565.5 DEV DEGREE 11.61 12.76	FT/SEC 405.2 405.2 456.0 483.4 434.0 423.8 417.0 TURN PERFE 64.06 54.35	FT/SEC 367.8 342.6 451.1 470.8 415.7 399.4 384.8 CAMBER DEGREE 62.52 56.57	FT/SEC 3 400.8 5 491.9 6 491.9 6 491.9 6 491.9 6 491.9 6 491.9 7 433.9 423.6 417.0 SOLIDTY 2 2.1086 2 2.1086 2 1.9524	FT/SEC 3 616.8 3 591.6 5 591.6 5 505.3 4 47.7 3 410.6 4 409.6 4 14.3 ( D=FAC	FT/SEC -34.6 15.6 63.1 48.6 28.6 19.6 19.6 19.6 19.6 19.6 19.6 19.6 28.	DEGREE 59.1 50.4 53.6 48.2 43.3 42.2 44.2 45.7 47.1 1055-F TOIAL 0506	DEGREE -4.87 2.24 7.36 5.78 3.578 2.59 1.88 80 LOSS-P PROFILE 0.0534	DEGREE -23-66 -16-98 -19-64 -79-64 -31-44 -3	DEGREE 4 51.91 2 48.66 9 47.46 5 50.01 0 59.0 1 60.45 4 61.6 0 MEGA - 8	7 401.6 401.6 410.	FT/SEC 650.3 621.4 607.1 668.2 748.1 813.6 843.6 879.6 EFF-P STATIC 7761 7333 7165	FY/SEC 161.1 171.6	FT SEC 1 -512.1 -475.8 2 -455.8 3 -492.4 3 -573.7 3 -663.6 9 -747.3 5 -772.6 M-2 9 .3497 1 .3497 1 .3522	FT/SEC 455.7 471.9 490.4 543.6 616.4 742.2 760.4 777.7 M'-1 .3588 .3735	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281
5 10 15 30 50 70 85 90 95 3 <u>LSPAN</u> 5 10	1N 17,72 18,32 19,07 21,14 23,97 26,76 29,57 3(,24 1NCS 0EGREE 9,4 7,5	IN 20 18.580 50 19.110 70 19.740 10 21.600 70 24.200 90 20.889 70 29.600 10 20.270 5. INCM 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600 10 29.600	FT/SEC 718-1 719-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV OFGREE 11-61 12-76 22-95	FT/SEC 402.7 400.3 405.2 456.0 483.4 467.6 423.8 417.0 TURN DEGREE 64.06 54.18 46.35	FT/SEC 367,8 367,8 392,6 451,1 470,8 455,1 399,4 384,8 CAMBER OEGREE 62-52 59-51 56-57	FT/SEC 3 400.8 3 491.9 4 451.6 4 451.6 4 453.6 4 453.6 4 453.6 4 453.6 5 417.0 5 0 L I D T Y 2 . 1 0 8 6 2 . 1 0 8 6 2 . 1 0 8 6 4 1 7 6 9 6	FT/SEC 3 616.8 5 616.8 5 91.6 5 91.6 5 905.3 9 407.7 6 405.1 6 409.6 9 414.3 7 D=FAC 6 .6495 6 .6312 6 .6312 6 .6312 6 .6312 6 .6312 6 .6312 6 .6312 6 .6312	FT/SEC -34.2 151.6 63.1 48.6 28.1 19.5 5.6 0MEGA-B .2063 .214.5	DEGRÉE 59.14 59.15 59.64 59.16 59.16 49.25 49.25 47.11 47.11 LUSS-F TOTAL 6.041 6.05 5.06 5.06 5.06 5.06 5.06 5.06 5.06	DEGREE 7 - 4 - 8 7 - 9 6 5 - 7 8 5 - 9 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6	DEGREE 69-23-69-23-69-87-19-69-87-19-69-87-95-7-19-59-51-8-95-51-8-95-51-8-95-51-8-9-9	DEGREE 4 51.94 51.94 1 48.66 9 47.46 5 50.01 4 61.6 0 61.6	77 401.6 401.6 419.1 70 419.1 70 419.1 70 535.3 77 535.3 77 535.3 77 535.3 70 0000 00000	FT/SEC 650. 621. 668. 748. 781. 843. 859. 878. EFF-P STATIC 7761 71628	FT/SEC 3 161.4 119.4 71.2 -38.7 -168.4 1-278.3 3 -357.3 3 -353.3 M-1 .6276 .6276 .6036	FT/SEC 1 -512-1 -512-1 -512-1 -512-1 -455-8 -492-4 -747-3 -747	FT/SEC 455.7 471.9 490.4 543.6 616.4 616.4 742.2 760.4 777.7 M*-1 .3568 .37.35	FT/SEC 477,8 491,4 507,6 555,5 622,3 691,3 761,2 778,4 M*-2 ,5646 ,5281 ,5827
5 10 15 30 50 70 85 90 95 36.SPAN 5 10 15 30 50	17,72 18,35 19,07 21,14 23,97 26,97 28,86 29,57 5,24 10,58 0,58 0,58 0,58 0,58 0,58 0,58 0,58	IN 20 18-580 50 19-110 19-740 19-740 21-600 70-26-88-900 28-900 29-600 30-270 5-18-28-13-2	FT/SEC 718.1 709.7 696.9 677.5 649.7 613.7 580.4 572.2 565.5 DEV DEGREE 11.61 22.76 11.61	FT/SEC 402.7 400.3 405.2 456.0 434.0 427.0 TURN DEGREE 64.06 54.18 40.35 40.25 40.35	FT/SEC 367.8 392.5 412.6 451.1 451.1 455.7 399.4 384.8 CAMBER DEGREE 62.52 59.51 56.97	FT/SEC 3 400.8 5 399.8 6 491.9 4 451.6 6 46.8 7 433.8 4 423.6 8 417.6 5 0 LIDTY 2 2.1086 1 2.0322 1 1.7526 5 1.5531	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 4 47.7 4 405.1 5 405.1 6 409.6 414.3 (D=FAC 6 .6495 2 .6312 4 5096 4 524	FT/SEC -34-2 151-6 63-1 48-6 28-1 19-6 13-5 5-6 0ME GA-8 -20-3 -21-1 -14-5 -20-3 -24-1 -44-5 -30-6 -30	DEGRÉE 59.19 50.69 48.23 43.55 44.25 45.71 47.11 LUSS-F TOTAL 0.050 0.050 0.050 0.050	DEGREE 7 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	DEGREE - 23-66 - 24-76	DEGREE 4 51.91 2 48.60 9 47.46 5 54.86 6 61.65 0 61.65 0 0000 9 00000 1 00000 1 00000	77 401-6 401-6 419-16 70 419-16 500-9 77 5335-7 5335-7 5335-7 55 529-3 1 100000 10000000000000000000000000000	FT/SEC 650. 621. 668. 748. 843. 879. 879. 879. FFF-P STATIC 7761 7333 7165 8408	FT/SEC 5 161, 119, 71, 71, 71, 71, 71, 71, 71, 71	FT SEC 1 - 512.1 1 - 512.1 1 - 4755.8 2 - 455.8 3 - 573.7 3 - 5723.7 3 - 747.3 5 - 747.3 5 - 747.3 5 - 747.3 5 - 747.5 5 - 747	FT/SEC 475.7 475.7 470.4 543.6 616.4 648.2 760.4 777.7 M*-1 .3568 .3735 .4016	FT/SEC 477.8 491.4 507.6 555.5 622.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5827 .6541
5 10 15 30 50 70 85 90 95 3 <u>LSPAN</u> 5 10	1N 17,72 18,32 19,07 21,14 23,97 26,76 29,57 30,24 1NCS DEGREE 9,4	IN 20 18.580 550 19.110	FT/SEC 718-1 719-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV 0FGREE 11-61 22-76 22-95 16-41 17-61	FT/SEC 402.7 400.3 400.3 456.0 456.0 424.0 417.0 TURN DEGREE 64.06 40.28 37.77 38.58	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.8 415.7 399.4 56.97 56.97 51.71 44.56 44.56	FT/SEC 3 400.8 3 400.8 4 401.9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	FT/SEC 3 616.8 5 616.8 5 51.6 5 505.3 447.7 5 405.1 6 409.6 6 414.3 ( D=FAC 6 .6495 2 .6312 6 .695.2 4 .695.2 4 .695.2 6	FT/SEC -34.2	DEGRÉE 59.14 59.46 59.46 59.46 49.26 49.26 49.27 47.11 LUSS-F TOTAL 0.041 0.025 6.025 6.05 4.00 6.00 6.00 6.00 6.00 6.00 6.00 6.00	DEGREE 7-4-87-2-7-3-96-5-78-5-78-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5-5-88-0-5	DEGREE 69-23-69-87-69-87-69-87-95-95-95-95-98-89-97-97-97-97-97-97-97-97-97-97-97-98-89-98-3-97-98-8-98-3-98-3	DEGREE 4 51.91 2 48.66 9 47.46 9 55.01 5 50.6 1 60.4 1 60.	7 401.6 401.6 410.	FT/SEC 650.3 621.4 607.6 668.2 748.7 813.6 843.6 859.6 878.6 EFF-P STATIC 77613 77628 8408	FT/SEC 3 161 7 168 2 -38 7 -168 1 -278 1 -337 1 -350 3 -363 M-1 .637 .637 .637 .637 .637 .637 .637 .637 .637 .637	FT SEC 1 -512-1 -475-8 2 -455-8 3 -492-4 5 -492-7 1 -723-6 -747-3 M-2 3 -3476 3 -3522 3 -3522 3 -377-3 3 -3522 3 -377-3 3	FT/SEC 471.9 471.9 543.6 616.4 616.4 742.2 760.4 777.7 M*-1 .3568 .3735 .4016 .4413 .4698	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .7827 .65541 .7071 .7318
5 10 15 30 50 70 85 90 95 3. SPAN 5 10 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18.580 50 19.110 19.740 19.740 19.740 19.600 20.600 20.600 20.600 19.600	FT/SEC 718-1 718-1 719-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV DEGREE 11-61 16-15 22-76 22-76 16-41 17-61 17-61 17-61	FT/SEC 402.7 403.2 456.0 487.6 437.6 423.8 417.0 TURN DEGREE 64.06 54.18 46.28 37.77 38.58 41.88	FT/SEC 367.8 392.5 412.6 451.1 470.8 451.1 475.7 394.8 CAMBER DEGREE 62.52 59.51 54.57 44.56 44.19	FT/SEC 3 400.8 3 400.8 4 401.9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 4 47.7 4 405.1 5 405.1 6 5096 6	FT/SEC -34-2 15-4 63-1 48-6 28-2 19-8 13-5 5-6 0ME GA-B -20-3 -21-3 -24-3	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 7 - 9 6 5 - 4 - 8 7 - 9 6 6 5 - 4 - 8 8 0 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	DE GREE 69-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 419	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 161.4 171.7 71	FT/SEC 1 -515.8 1 -515.8 2 -455.8 2 -452.4 3 -5473.7 5 -747.3 3 -747.3 4 -747.3 4 -747.3 5 -747.3 6 -3472.2 7 -4477.3 7	FT/SEC 455.7 471.9 543.6 616.4 616.4 6742.2 760.4 777.7 M*-1 .3568 .37.35 .4113 .4718 .4665	FT/SEC 477.8 491.4 507.6 555.5 622.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5827 .6541 .7071 .7318 .7436
5 10 15 30 50 70 85 90 95 <b>%_SPAN</b> 5 10 15 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18.580 550 19.110	FT/SEC 718-1 718-1 719-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV DEGREE 11-61 16-15 22-76 22-76 16-41 17-61 17-61 17-61	FT/SEC 402.7 403.2 456.0 487.6 437.6 423.8 417.0 TURN DEGREE 64.06 54.18 46.28 37.77 38.58 41.88	FT/SEC 367.8 392.5 412.6 451.1 470.8 451.1 475.7 394.8 CAMBER DEGREE 62.52 59.51 54.57 44.56 44.19	FT/SEC 3 400.8 3 400.8 4 401.9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 4 47.6 5 405.1 6 409.6 414.3 (D=FAC 6 .6495 2 .6312 4 .6312 4 .6312 4 .6312 4 .6312 4 .6312 4 .6312 4 .6312 5 .6312 6 .6312	FT/SEC -34-2 15-4 63-1 48-6 28-2 19-8 13-5 5-6 0ME GA-B -20-3 -21-3 -24-3	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 - 7 - 9 6 5 - 4 - 8 8 0	DEGREE 69-23-69-87-69-87-99-8	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 70 419-16 70 453-97 70 5331-3 70 5331-3 70 50000 10 00000 10 00000 10 00000 10 00000 10 00000 10 00000 10 00000	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 3 161 7 168 2 -38 7 -168 1 -278 1 -337 1 -350 3 -363 M-1 .637 .637 .637 .637 .637 .637 .637 .637 .637 .637	FT/SEC 1 -515.8 1 -515.8 2 -455.8 2 -452.4 3 -5473.7 5 -747.3 3 -747.3 4 -747.3 4 -747.3 5 -747.3 6 -3472.2 7 -4477.3 7	FT/SEC 455.7 471.9 543.6 616.4 616.4 6742.2 760.4 777.7 M*-1 .3568 .37.35 .4113 .4718 .4665	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .7827 .65541 .7071 .7318
5 10 15 30 50 70 85 90 95 3. SPAN 5 10 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18-58   20 18-58   20 19-74   40 21-60   70 24-20   70 29-60   40 30-27   5 INCM   5 INCM   5 INCM   7 12-72   8 1 12-12   9 1 10-66   9 15-55   15-23   15-73   16-77	FT/SEC 718-1 709-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV DEGREE 11-61 18-1 18-1 18-1 18-1 18-1 18-1 18-	FT/SEC 402.7 400.2 456.0 456.0 423.8 417.0 TURN DEGREE 64.06 5	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.8 415.7 399.4 384.8 CAMBER OEGREE 62.52 59.51 56.97 51.71 44.56 45.27 45.95 46.75	FT/SEC 3 400.8 5 491.9 6 491.9 1 451.6 6 491.9 1 433.1 4 433.1 4 433.1 4 433.1 4 433.1 4 17.0 SOLIDTY 2 2.1086 1 1.7696 9 1.3874 1 1.2874 1 1.2874	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 4 47.7 4 409.6 4 414.3 ( D=FAC 5 .6495 2 .6312 3 .5096 4 .524 4 .5344 5 .5344 5 .5568	FT/SEC -34.6 15.6 63.1 48.6 28.1 19.6 13.5 5.6 OME GA-B .174.8 .2065 .24.0 .45.5 .04.5 .04.5 .14.5 .04.6 .15.4	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 7 - 9 6 5 - 4 - 8 7 - 9 6 6 5 - 4 - 8 8 0 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	DE GREE 69-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 419	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 3 161. 119. 7 168. 1 -278. 2 -38. 7 -168. 1 -370. 3 -350. 3 -350. 4 -350. 6 -351. 6 -351.	FT 5EC 1 -475.8 -475.8 2 -455.8 3 -492.4 3 -573.7 -723.6 -747.6 M-2 -3476 -3497 -3	FT/SEC 455.7 471.9 543.6 616.4 616.4 6742.2 760.4 777.7 M*-1 .3568 .37.35 .4113 .4718 .4665	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .5827 .6541 .7318 .7436
5 10 15 30 50 70 85 90 95 3. SPAN 5 10 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18-580 50 19-110	FT/SEC 718-1 718-1 719-7 696-9 677-5 649-7 580-4 572-2 565-5 DEV DEGREE 11-61 16-15 22-76 22-76 16-41 17-61 17-61 17-61	FT/SEC 402.7 400.2 456.0 487.6 423.8 417.0 TURN DEGREE 64.06 54.15 40.28 37.77 38.58 41.68 43.84 46.32	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.8 415.7 399.4 56.8 62.52 56.97 51.71 44.56 44.79 45.27	FT/SEC 3 400.8 3 400.8 4 401.9 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4	FT/SEC 3 616.8 5 591.3 5 561.6 5 505.3 4 47.7 4 405.1 5 405.1 6 5096 6	FT/SEC -34.6 15.6 63.1 48.6 28.1 19.6 13.5 5.6 OME GA-B .174.8 .2065 .24.0 .45.5 .04.5 .04.5 .14.5 .04.6 .15.4	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 7 - 9 6 5 - 4 - 8 7 - 9 6 6 5 - 4 - 8 8 0 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	DE GREE 69-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 419	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 161.4 171.7 71	FT SEC 1 - 52-1 1 - 52-1 1 - 52-1 1 - 53-6 1 - 747-3 1 -	FT/SEC 455.7 471.4 543.6 616.4 742.2 760.4 777.7 M*-1 .3588 .3735 .4016 .4413 .4698 .4608	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .7827 .6541 .7318 .7436 .7383
5 10 15 30 50 70 85 90 95 3. SPAN 5 10 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18-580 20 18-580 21-600 21-600 20 20-88 20 20-80 13-27 20 10-60 13-27 20 10	FT/SEC 718-1 709-7 696-9 677-5 649-7 5580-4 572-2 565-5 DEV 0FGREE 11-61 11-61 12-76 16-41 17-61 17-59 WCOR-1	FT/SEC 402.7 400.2 456.0 434.0 423.8 417.0 TURN DEGREE 64.08 54.28 37.77 38.58 41.58 46.35	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.7 399.4 384.8 CAMBER QEGREE 62.53 56.97 51.71 44.56 45.27 45.27 45.27	FT/SEC 3 400.8 5 491.9 6 491.9 6 491.9 8 461.6 9 433.8 9 423.6 9 423.6 1 2.1056 1 2.10	FT/SEC 3 616.8 3 591.3 5 591.5 5 505.3 4 47.7 4 405.1 6 405.1 6 404.3 0 -FAC 6 .6495 2 .6312 4 .6019 3 .5096 4 .5101 5 .5344 5 .5344 6 .5344 8 .5568 EFF-AO	FT/SEC -34-5 15-6 63-1 48-6 28-1 19-6 13-5 5-6 0ME GA-8 -1748 -20-3 -14-5 -04-5	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 7 - 9 6 5 - 4 - 8 7 - 9 6 6 5 - 4 - 8 8 0 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	DE GREE 69-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 419	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 3 161. 119. 7 168. 1 -278. 2 -38. 7 -168. 1 -370. 3 -350. 3 -350. 4 -350. 6 -351. 6 -351.	FT SEC 1 - 52-1 1 - 52-1 1 - 52-1 1 - 53-6 1 - 747-3 1 -	FT/SEC 7 4719-4 545-7 4919-4 543-6 616-9 742-2 760-4 777-7 M*-1 .3568 .3735 .4016 .4718 .4698 .4608 LANT-1	FT/SEC 477.8 491.4 507.6 555.5 622.3 591.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .5827 .6541 .7071 .7318 .7436 .7436 .7583
5 10 15 30 50 70 85 90 95 3. SPAN 5 10 30 50 70 85	17, 72 18, 35 19, 07 21, 14 23, 97 26, 97 28, 88 29, 57 5, 12 0EGREE 9, 9, 12 4, 17 7, 18	IN 20 18-580 20 18-580 21-600 21-600 20 20-88 20 20-80 13-27 20 10-60 13-27 20 10	FT/SEC 718-1 709-7 696-9 677-5 649-7 5580-4 572-2 565-5 DEV 0FGREE 11-61 11-61 12-76 16-41 17-61 17-59 WCOR-1	FT/SEC 402.7 400.2 456.0 434.0 423.8 417.0 TURN DEGREE 64.08 54.28 37.77 38.58 41.58 46.35	FT/SEC 367.8 392.5 412.6 451.1 470.8 455.7 399.4 384.8 CAMBER QEGREE 62.53 56.97 51.71 44.56 45.27 45.27 45.27	FT/SEC 3 400.8 5 491.9 6 491.9 6 491.9 8 461.6 9 433.8 9 423.6 9 423.6 1 2.1056 1 2.10	FT/SEC 3 616.8 5 616.6 5 505.3 9 447.7 6 405.1 6 40	FT/SEC -34-5 15-6 63-1 48-6 28-1 19-6 13-5 5-6 0ME GA-8 -1748 -20-3 -14-5 -04-5	DEGRÉE 59.4 53.6 53.6 48.2 53.6 44.2 53.6 44.2 53.6 47.1 6.0 43.7 5.0 5.3 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0	DEGREE 7 2 - 4 - 8 7 - 9 6 5 - 4 - 8 7 - 9 6 6 5 - 4 - 8 8 0 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9 - 9	DE GREE 69-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6-8-6	DEGREE 4 51.91 4 8.66 9 47.46 9 47.46 5 54.65 1 60.45 1 60.45	77 401-64 401-64 70 419-16 419	FT/SEC. 650. 621. 661. 668. 627. 668. 627. 668. 678. 678. 68	FT/SEC 3 161. 119. 7 168. 1 -278. 2 -38. 7 -168. 1 -370. 3 -350. 3 -350. 4 -350. 6 -351. 6 -351.	FT SEC 1 - 52-1 1 - 52-1 1 - 52-1 1 - 53-6 1 - 747-3 1 -	FT/SEC 455.7 471.4 543.6 616.4 742.2 760.4 777.7 M*-1 .3568 .3735 .4016 .4718 .4698 .4698 .4608 LANT-1	FT/SEC 477.8 491.4 507.6 555.5 622.3 691.3 743.2 761.2 778.4 M*-2 .5646 .5396 .5281 .7827 .6541 .7318 .7436 .7383

## Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTO	ΛB		Dia	ide-E1	CIIIGIIC	and O		of De			Diaro	1 -11 ab	BIIL	uction				
1001		014-2	V-1	V=9	VM-1	VM-2		VO-2	B=1	8-2	B ! = 1	P!=2	V!=1	V•=2	V01-1	V01-2	U <b>-1</b>	U=2
* SPAN	IH	IN	FTISEC	EI/SEC	fi/sec.	FI/SEC	FT/SEC	ET/SEC .	DEGREE	DEGREE	DEGREE	DEGREE	FT/SEC	FT/SEC	FT/SEC	ET/SEC	FT/SEC	FT/SEC
10	13.120	16.790	535.5 546.0	1017.9		635.0 635.9		795.5 778.1		51.40 50.74				715.8 699.6				6 465.0 0 487.1
15	15.170	17.580	558,4	973.4	558.4	641.7	ألم	731.6	-00			-19.02			-440.1			1 510.0
30	18.280	19.910	587.4	886.5	587.4	648.0	٠	604.7 493.7	.00	42.99	42.05	-2.36	791.5	650.5	-530.3	27.	1 530.	3 577.6
50 70			613.0				١	493.7	•00	38.77 35.56					≈643.7			7 669.9 8 761.8
85	28.450	28.61	620.0	648.6	620.0	534.5	١	367.3	•00	34.51				707.3				3 630.0
90	29.320	29.410	619.8	616.5	619.8	499,5	١	367.3 361.2	•00		53.92		1052.5		•850.ó			
95	30.150	30.180	615.2	508.0	616.2	468.3	• 0	355.5	•00	37.20	54.83	47.99	1069.9	699.9	-874.7	-520.	1 874.	7 875.5
% SPAN	INCS	INCM	DEV DEGREE	TURN	CAMBER			OMEGA-8								M+2	M'-1	M+-5
5	-5.58	1.33	9.22	62.90	70.85	2.4324	.1842	.3088	£ £ £			8283		- GGGG	.4918	.933	9 .604	4 .6568
10	-4.66		6.49	61.41	65.95	2.2851	.2457	.2074	.0413	.0413	1.4241	.87 <del>9</del> 9	.8738	•0000	.5028	.918	7 .630	0 .6396
15 30	-4.06 -3.16		7.85 11.35			2.1565		.1502			1.4307	•9ú51	•9002		.5145	.886		
50	-2.24		11.49			1.9043		.0556	.0140 .0158	•D140	1.4263				•5419 •5667			
70	96	3.23	11.92	18.29	26.99	1.5345	4488	<b>0836</b>	.0231	.0231	1.3442		.8888	-0000				
85	26		10.94			1.4421				.0277	1.3208				.5732			
90 95	21 19		12.31 13.84			1.4148				.0428	1.2965	.7865 .7391			.5726 .5693			
	•••		·															_
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AD	EFF-P				_			STA-1 S			SLANT~2 DEGREE
																		_
		6648.0	171.70	38.71	1.1057	1.3685	88.727	89.29							5.0	5.0	86.05	95.02
STA	ror																	
W CDAN	DIA-1	DIA-2	V-1	V=2	VM-1	VM-2	V0-1	V0-2	8-1 Sept (	B-2	B1=1	B*=2			V0'-1		U-1 FT/SEC	U-2
5	IN 17.720	18.580	939.2	618.7	604.1	618.0	719.1	25.0	49.97	2.30	-18.75	39.75	638.0	803.9	205.1	-514.0	514.1	539.0
10	18.350	19.110	949.8	642.4	628.2	639.9	712.4	55.3	48.59	4.93	-16.00	37.95	653.6	811.6	180.1	-499.1	532.3	554.4
15	19.070					656.8			46.07		-10.67			827.3			) 553.2 ) 613.3	2 572.7 3 626.6
30 50	21-140	24.200					569.5 475.5		39.41 34.55	4.96 5.57	3.58 17.66	43.84					695.4	
70	26.790	26.800	770.3	-634.8	-659.5	634.2	397.9	27.1	31.10	2.44	29,86	49.86	761.4	984.5	-379.2	-752.7	777.2	779.8
85	28.860				635.1					1.21	36.70	53,48					7 837.2	
90 95		29.600 30.270		574.7 540.7		574.5 540.5			30.59 31.34	1.74	39.39	55.68 57.91	782.6	1019.0	<b>~522.6</b>	-862.0	5 857.8 5 877.3	
90		-				-											M*-1	M1-2
% SPAN	INCS DEGREE	INCM	DEV DEGREE I	DEGREE I	DEGREE			OME:GA-B	TOTAL	PROFILE	P01 S	OCK J	TOTAL _	STATIC	M-1	M-2	MT	
5	• 33	4.30	18.79	47.67	62.55	2.1073	.5121	.1358	.0322	.0322	.9488	•0000	.0000	.7997	.8531			
10 15	•67 <b>-</b> •16	4.92	20.88 21.49			1.9470		.1596 .1390		.0392	9388		•0000		.8583 .8465			
30	-3.22	1.59				1.7530	4037		.0258	.0355 .0258	9681	0000	.0000		.8084			
50	-4.96	-54	16.36	28,98	44.80	1.5485	.3620	.0646	,0207	.0207	.9798	.0000	.0000	.8575	.7523			
70	-6.44	33				1.3868			0172	-0172	9871	0000-			.6885 .6517			
85 90	-6.93 -6.26		16 • 25 17 • 45			1.2866	.3507 .3783		.0203	.0203 .0319	.9870 .9814	•0000	•0000		.6261			
95	-5.85		18.04			1.2271	.4093		.0414	.0414	9779			7595	.6032			
		NCOR-1	wcoR=1	WC/A-1	T02/	P02/	FFF-AD	FFF-P						,	5TA-1 5'	TA-2 S	SLANT-1	SLANT=2
		RPH L	BM/SEC	LBH/SEC	TOI	P01	- 1	EFF-P									EGREE	
			171.70												11,0	12.0	90.00	90.00

ROTOR

90% of Design Speed

							90%	or ne	eargn c	peed								
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	_V0~2	8-1	8-2	8'-1	81-2	_V *-1	V1-2	V0"-1	y01-2	U-1	U-2
% SPAN		10.030	491.5	960.3	491.5	564.1	INSEC I	777.2	DEGKEE	54.02	EGREE	DEGREE	FT/SEC F	T/SEC	FT/SEC I	T/SEC !	TYSEC F	T/SEC
10		16.790	506+2		506.2			751.9		52.78		-24.86	621.6 650.8		-409.0	312·2 264·9	380.6 409.0	465.0 487.0
15	15.170	17.580	518.3	914.2	518.3	573.4	0	711.9	.00	51.14			679.9		-440.0		440.0	509.9
30		19.910	545 • 1		545.1	578.9	• 0	604.4	.00	46.20		-2.60	760.5		-530.2		530.2	577.5
50		23.090	569.4		569.4			499.5	.00	42.03	48.48		859.5		-643.7		643.7	669.8
70 85		26.260 28.610	579.3 574.7	676.6 634.5	579.3 574.7	527.5 496.3				38.76 38.54	52.33				-750.7		750.7	761.7
90		29.410		606.9	576.3		•0	395.1	.00	40.66	55•14 55•87		1005.7		-825.2 -850.5		825.2 850.5	829.9 853.1
95		30.180			573.5				.00				1045.8	644.6	-874.6	-481.6	874.6	875.4
	INCS	INCM	DEV	TURN /	AMRER	SOLIDIY			-			•	FF-AD			M-2	M*-1	M1-2
% SPAN	DEBREE	DEGREE	EGREE	DEGREE	EGREE			, icon o	TOTAL	PROFILE	POI		TOTAL SI		-	M-E	M 2	ME
5	-3.23			66.71		2 • 4323	2454	.2518	• 0453	.0453	1.3977	.8715	.8653	-0000	.4499	.8740	.5701	-5868
10 15	-2.56 -1.98	4.08	6.20	63.80		2 • 2847	-3069	.1668	•0331		1-4241	.9089		.0000		.8566	•5993	.5714
30	-1.03	4.54	7.51 11.10	59.69 46.78		2.1563	.3653 .4525	.1250	.0273 .0101		1.4289 1.4335	.9254 .9703		•0000		8260	6263	5499
50	15	4.83	12.52			1.6902	4989	• 0340			1.4115	9667		.0000		.7499 .6620	.6997 .7919	.5210 .5158
70	1.06	5,26	12.53			1.5346	4849	-0410			1.3883	9516		40000		.5970	8737	.5536
85	1.79		11.28			1.4421	.4801	.0712	.0186		1.3757			•0000		-5570	.9273	.5796
90	1.74	5.26	15.60	11.00		1.4148	5036	.1238	.0310		1.3542		.8364	.0000	.5301	.5307	.9468	.5682
95	1.72	5.09	14.19	9.40	17.48	1.3891	-5192	1594	•0351	0381	1.3397	•7939	.7873	-0000	.5276	5671	•9 <u>628</u>	.5617
		NCOR-1	WCOR-1	WC/A-1	T02/	P02/	EFF-AO	EFF-D								14-0 CI	ANT-1 S	LANT-2
				BM/SEC		P01	X	K					·	•	31A-7 3		GREE D	
				SQFT									·				A118F-"-	EALTER.
		6647.0	162.81	36.71	1.1087	1.3977	92.393	92.80							5.3	6.c	86.05	95.02
CITTA	TOR														5,0	- 10		
DIA	101																	
	D1A-1	DIA-2	V-1	V-2	AW-1	VM-2	V0-1	V0-2	8-1	B-2	B*-1	B1=2	v!-1	V1-2	V0*-1	_٧0+=2	U-1	U=2
% SPAN	DIA-1 IN	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGREE	DEGREE	EGREE	DEGREE	FT/SEC	FT/SEC	FT/ jEC	FT/SEC	FT/SEC F	FT/SEC
% SPAN 5	DIA-1 IN 17.720	IN 18.580	577.6	537.0	FT/SEC 525.6	537.6	702.8	FT/SEC	DEGREE 53.21	DEGREE (	EGREE -19.75	DEGREE 44.8	FT/SEC 558.5	758.2	FT/;EC	FT/SEC -534.5	514.0	538.9
% SPAN 5 10	DIA-1 IN 17.720 16.350	IN 18.580 19.110	877.6 882.6	537.0 557.5	525.6 525.6 552.4	FT/SEC 537.6 555.4	702.8 688.3	FT/SEC 4.4 45.4	DEGREE 53.21 51.25	DEGREE ( •44 4.66	0EGREE -19.75 -15.78	DEGREE 44.83	FT/SEC 558.5 574.1	758 • 2 753 • 4	FT/;EC 158.8 156.1	FT/SEC -534.5 -508.9	514.0 532.3	538.9 554.3
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	IN 18.580 19.110 19.740	877.6 877.6 882.6 870.0	537.2 537.2 557.5 568.5	525.6 525.6 552.4 570.2	537.6 555.4 564.3	702.8 688.3 657.0	FT/SEC 4.4 45.4 69.5	DEGREE 53.21 51.25	05GREE ( •44 4.66 7.02	EGREE -19.75 -15.74 -10.34	DEGREE 44.83 42.49	FT/SEC 558.5 574.1 580.1	F <u>τ/SEC</u> 758•2 753•4 756•0	158.8 156.1 103.8	FT/SEC -534.5 -508.9 -503.1	FT/SEC 5 514.0 532.3 553.2	538.9 554.3 572.6
% SPAN 5 10	DIA-1 IN 17-720 18-350 19-070 21-140	IN 18.580 19.110	877.6 877.6 882.6 870.0 835.9	537.9 537.9 557.5 568.5 606.4	FT/SEC 525.6 552.4 570.2 611.8	537.6 555.4 564.3 604.2	702.8 702.8 688.3 657.0 569.2	FT/SEC 4.4 45.4 69.5	DEGREE 53.21 51.25 49,04 42.92	05GREE ( 44 4.66 7.02 4.87	0EGREE -19.75 -15.78	DEGREE 44.83 42.49 41.72	FT/SEC 3 558.5 574.1 580.1 614.7 655.7	FT/SEC 758.2 753.4 756.0 834.2 881.3	FT/;EC 158.8 156.1	FT/SEC -534.5 -508.9 -503.1 -575.0	514.0 532.3 553.2 613.2	538.9 554.3 572.6
% SPAN 5 10 15 30	D1A-1 IN 17.720 18.350 19.070 21.140 23.970 26.790	IN 18.580 19.110 19.740 21.600 24.200 26.880	FT/SEC 877.6 882.6 870.0 835.9 783.7 736.8	FT/SEC 537.7 557.5 568.5 606.4 602.2 589.4	525.6 525.6 552.4 570.2 611.8 618.6 608.6	57/SEC 537.6 555.4 564.3 604.2 599.5 588.6	FT/SEC 702.8 688.3 657.0 569.2 481.1 415.1	FT/SEC 4.4 45.4 69.5 51.5 56.3	DEGREE 53.21 51.25 49,04 42.92 37.86	0:5GREE   -44 4.66 7.02 4.87 5.36 3.01	-19.75 -19.75 -15.74 -10.34 4.06 19.05	DEGREE 44.83 42.49 41.72 43.51 47.1(	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6	FT/SEC 758.2 753.4 756.0 834.2 881.3 952.5	FT/ EC 158.8 156.1 103.8 -44.0 -214.2 -362.0	FT/SEC -534.5 -508.9 -503.1 -575.0 -645.7 -748.7	FT/SEC ( 514.0 532.3 553.2 613.2 695.3 777.1	536.9 554.3 572.6 626.6 702.0 779.7
% SPAN 5 10 15 30 50 70 85	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	FT/SEC 877.6 882.6 870.0 835.9 783.7 736.8 706.6	FT/SEC 537.7 557.5 568.5 606.4 602.2 589.4 571.7	525.6 525.6 552.4 570.2 611.8 618.6 608.6	57/SEC 537.6 555.4 564.3 604.2 599.5 588.6 571.5	FT/SEC 702.8 688.3 657.0 569.2 481.1 415.1 391.1	FT/SEC 4.4 45.4 69.5 51.5 31.0 14.4	DEGREE 53.21 51.25 49.04 42.92 37.86 34.29	0:GREE   -44 4.66 -7.02 4.87 5.36 -3.01 1.45	-19.75 -19.75 -15.74 -10.34 4.06 19.05 30.70	DEGREE 44.83 42.49 41.72 43.57 47.1( 51.8)	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6 738.5	FT/SEC 758.2 753.4 756.0 834.2 881.3 952.5	FT/ EC 158.8 156.1 103.8 -44.0 -214.2 -362.0	FT/SEC -534.5 -508.9 -503.1 -575.0 -645.7 -748.7 -823.9	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1	538.9 554.3 572.6 626.6 702.0 779.7 838.3
% SPAN 5 10 15 30 50 70 85	D1A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 19-110 19-740 21-600 24-200 26-880 28-900 29-600	FT/SEC 877.6 882.6 870.0 835.9 783.7 736.8 706.6 684.5	537.9 537.9 557.5 568.5 606.4 602.2 589.4 571.7 539.8	FT/SEC 525.6 552.4 570.2 611.6 618.6 608.6 588.5	FT/SEC 537.6 555.4 564.3 604.2 599.5 588.6 571.5	FT/SEC 702.8 688.3 657.0 569.2 481.1 415.1 391.1 392.4	FT/SEC 4.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2	DEGREE 53.21 51.25 49,04 42.92 37.86 34.29 33.62	DEGREE ( 444 4.66 7.02 4.87 5.36 3.01 1.45	-19-75 -19-75 -15-75 -10-34 4-06 19-05 30-76 37-17	DEGREE 44.83 42.49 41.72 43.51 47.10 51.80 55.26	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6 738.5 728.9	FT/SEC 758.2 753.4 756.0 834.2 881.3 952.5 1002.9	FT/;EC 158.8 156.1 103.8 -44.0 -214.2 -362.0 -446.0	FT/SEC -534.5 -508.9 -503.1 -575.0 -645.7 -748.7 -823.9 -840.4	FT/SEC ( 514.0 532.3 553.2 613.2 695.3 777.1 837.1 857.7	538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6
% SPAN 5 10 15 30 50 70 85	D1A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	FT/SEC 877.6 882.6 870.0 835.9 783.7 736.8 706.6 684.5	537.9 537.9 557.5 568.5 606.4 602.2 589.4 571.7 539.8	FT/SEC 525.6 552.4 570.2 611.6 618.6 608.6 588.5	57/SEC 537.6 555.4 564.3 604.2 599.5 588.6 571.5	FT/SEC 702.8 688.3 657.0 569.2 481.1 415.1 391.1 392.4	FT/SEC 4.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2	DEGREE 53.21 51.25 49.04 42.92 37.86 34.29 33.62	DEGREE ( 444 4.66 7.02 4.87 5.36 3.01 1.45	-19-75 -19-75 -15-75 -10-34 4-06 19-05 30-76 37-17	DEGREE 44.83 42.49 41.72 43.51 47.10 51.80 55.26	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6 738.5	FT/SEC 758.2 753.4 756.0 834.2 881.3 952.5 1002.9	FT/;EC 158.8 156.1 103.8 -44.0 -214.2 -362.0 -446.0	FT/SEC -534.5 -508.9 -503.1 -575.0 -645.7 -748.7 -823.9 -840.4	FT/SEC ( 514.0 532.3 553.2 613.2 695.3 777.1 837.1 857.7	538.9 554.3 572.6 626.6 702.0 779.7 838.3
% SPAN 5 10 15 30 50 70 85	D1A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570	IN 19-110 19-740 21-600 24-200 26-880 28-900 29-600	FT/SEC 877.6 882.6 870.0 835.9 783.7 736.8 706.6 684.5	FT/SEC 537.9 557.5 568.5 606.4 602.2 589.4 571.7 539.8 514.0	FT/SEC 525.6 552.4 570.2 611.8 618.6 608.6 588.5 560.8	FT/SEC 537.6 555.4 564.3 604.2 599.5 588.6 571.5 339.4	F7/SEC 702.8 688.3 657.0 569.2 481.1 415.1 391.1 392.4 393.0	FT/SEC 4.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2	0EGREE 53.21 51.25 49.04 42.92 37.86 34.29 33.62 35.00	DEGREE ( .44 4.66 7.02 4.87 5.36 3.01 1.45 1.92	0EGREE -19.75 -15.78 -10.39 4.06 19.05 30.70 37.17 39.74	DEGREE 44.83 42.49 41.72 43.51 47.10 51.80 55.20 57.30	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6 738.5 728.9	FT/SEC 758.2 753.4 756.0 834.2 881.3 952.5 1002.9 1002.9	FT/;EC 158.8 156.1 103.8 -44.0 -214.2 -362.0 -446.0	FT/SEC -534.5 -508.9 -503.1 -575.0 -645.7 -748.7 -823.9 -840.4	FT/SEC ( 514.0 532.3 553.2 613.2 695.3 777.1 837.1 857.7	538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 16.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE	F7/SEC 877-6 882-6 870-0 835-9 783-7 736-8 706-6 684-5 664-0 DEV	FT/SEC 537-7 557-5 568-8 608-9 602-2 589-4 571-7 539-8 514-0 TURN DEGREE	FT/SEC 525.6 552.4 570.2 611.8 618.6 588.5 580.8 515.1 CAMBER DEGREE	FT/SEC 537.6 555.4 564.3 664.2 599.5 588.6 571.5 339.4 SOLIDTY	702.8 702.8 688.3 657.0 569.1 481.1 391.1 392.4 393.0 D-FAC	FT/SEC 4.4 45.4 69.5 51.5 31.0 14.4 18.2 8.8	DEGREE 53.21 51.25 99.09 42.92 37.86 34.29 33.62 35.00 36.28	0:56REE ( .44 4.66 7.02 4.87 5.36 3.01 1.45 1.92 .98 Loss-P	19.75 -19.75 -15.78 -10.34 +.06 19.05 30.76 37.17 39.74 42.13	DEGREE 44.83 42.49 41.72 43.51 47.10 51.80 55.20 57.30 59.40	FT/SEC 558.5 574.1 580.1 614.7 655.7 708.6 738.5 728.9 721.8	FT/SEC 758-2 753-4 756-0 834-2 881-3 952-3 1002-9 998-8 1009-6 EFF-P STATIC	FT/3EC 158.8 156.1 103.8 -44.2 -362.0 -465.4 -484.2 M-1	FT/SEC -534-5 -508-9 -503-1 -575-0 -645-7 -748-7 -823-9 -840-4 -869-2	FT/SEC 1 514-0 532-3 553-2 613-2 613-2 695-3 777-1 837-1 857-7 877-2 M*-1	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17-720 16-350 19-070 21-140 23-970 26-790 28-860 29-250 INCS DIREE 3-42	IN 18.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 INCM	F7/SEC 877-6 882-6 870-0 835-9 736-8 706-6 684-5 664-0 DEV DEV DEGREE 16-93	FT/SEC 537-7 557-5 568-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OEGREE 52-77	FT/SEC 525.6 552.4 570.2 611.8 618.6 588.5 560.8 515.3 CAMBER DEGREE 62.59	FT/SEC 537.6 537.6 564.3 604.2 599.5 588.6 571.5 539.4 514.0 SOLIDTY	F7/SEC 702.8 688.3 657.0 569.2 481.1 415.1 391.1 392.4 393.0 D-FAC	FT/SEC 4.4 45.4 69.5 51.5 51.5 14.4 18.2 8.8 OMEGA-6	DEGREE 53.21 51.25 49.04 42.92 37.86 34.29 33.62 35.60 36.28 LOSS-P TOTAL	0:56REE   .44 4.66 7.02 4.87 5.36 3.01 1.45 1.92 .98 LOSS-P PROFILE	0EGREE -19-75 -15-78 -10-39 4-05 19-05 30-70 37-17 39-74 42-13 P02/0 P01 Si	DEGREE 44.83 42.49 41.72 43.51 51.87 55.26 57.36 59.40 OMEGA-B HOCK	FT/SEC 558.5 574.1 580.1 614.7 0655.7 708.6 738.5 721.8 EFF-AD TOTAL -0000	FT/SEC 758-2 753-4 753-4 831-3 952-3 1002-9 998-8 1009-6 EFF-P STATIC -7992	FT SEC 158.8 158.8 103.8 -44.0 -214.2 -362.9 -465.4 -484.2 M-1	FT/SEC -534-5 -508-9 -503-1 -575-0 -645-7 -748-7 -840-4 -869-2 M-2	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1 857-7 877-2 M*-1	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 16.350 21.140 23.970 26.790 28.860 29.570 INCS DESREE 3.32	IN 18-580 19-110 19-740 21-600 24-200 26-880 29-600 30-270 INCM DEGREE 7-39 7-64	F7/SEC 877-6 877-6 870-0 835-9 783-7 736-8 706-6 684-5 664-0 DEV DEGEE 16-93 20-60	FT/SEC 537-7 557-5 568-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN DEGREE 52-77 46-59	FT/SEC 525-6 552-4 570-2 611-6 618-6 588-5 550-8 515-2 CAMBER 62-54 59-56	FT/SEC 537.6 557.6 564.3 604.2 599.5 588.6 571.5 539.6 539.6 50LIDTY	702-8 702-8 688-3 657-0 569-2 481-1 415-1 391-1 392-4 393-0 D-FAC	FT/SEC 4.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2 0MEGA-6	DEGREE 53.21 54.25 49.04 42.92 37.86 34.29 35.00 36.28 40.55-P	DISGREE   444   4.66   7.02   4.87   5.36   3.01   1.45   1.92   .98   LOSS-P   PROFILE   0.952   0.9420   0.94	0EGREE -19-75 -15-78 -15-78 -10-34 -4-06 19-05 30-70 57-17 39-74 42-17 PO2/0 PO1-18-18-18-18-18-18-18-18-18-18-18-18-18	DEGREE 44.83 42.43 41.72 43.51 47.10 55.26 55.30 59.40 0MEGA-B HOCK	FT/SEC 558-5 569-1 569-1 708-6 738-5 728-9 721-8 EFF-AD TOYAL -0000 0000	FT/SEC 758-2 758-2 758-0 834-2 881-3 952-8 1002-9 1009-6 EFF-P STATIC -7992	FT/ SEC 188.8 158.8 103.6 -44.0 -214.2 -362.2 -465.4 -484.2 M-1	FT/SEC -534-5 -508-9 -503-1 -575-0 -645-7 -748-7 -823-9 -840-4 -869-2 M-2	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1 857-7 877-2 M*-1	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M*-2 .6565 .6531
% SPAN 5 10 15 30 50 70 85 90 95 % S-2 AN 5 10	DIA-1 IN 17.720 16.350 19.070 23.970 26.790 28.860 29.570 INCS DEGREE 3.92	IN 18-580 19-110 19-740 21-600 24-200 28-900 29-600 30-270 INCM DEGREE 7-39 7-64 7-32	FT/SEC 877-6 877-6 697-0 835-9 783-7 736-6 644-5 664-0 DEV DEGREE 16-93 22-46	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN DEGREE 52-77 46-59 92-42	FT/SEC 525-6 552-4 570-2 611-5 618-6 608-5 580-8 535-3 CAMBER DEGREE 62-59 57-06	FT/SEC 537-6 555-4 564-3 604-2 599-5 588-6 571-5 339-4 514-0 50LIDTY 2-1070 2-1070 1,9465	702-8 688-3 657-0 569-2 481-1 391-1 391-1 392-4 393-0 D-FAC -57135 -5435	FT/SEC 4.4 45.4 69.5 51.5 56.3 31.0 18.2 8.8 0MEGA-B	DEGREE 53.21 53.21 49.04 42.92 37.86 34.29 33.62 35.00 36.28 40.05S-P TOTAL 40.0552 40.0552	D:GREE   4466   4466   7.02   4.87   5.366   1.45   1.92   .98   LOSS-P   PROFILE   .0352   .0426   .0416   .0	DEGREE -19-75 -15-78 -10-34 4-06 19-05 30-70 37-17 39-74 42-13 P02/6 P015 -9459	DEGREE 44.83 42.45 41.72 43.51 51.6 51.6 57.3( 59.4( 0MEGA-B HOCK	FT/SEC 558-5 558-5 560-1 614-7 655-7 708-6 738-5 728-9 721-6 EFF-AD TOTAL -00000 -00000 -00000	FT/SEC 758-2 758-2 758-2 756-0 834-2 881-3 1002-9 998-8 1009-6 EFF-P STATIC -7651 -7661	FT/SEC 188.8 158.8 159.6 -44.0 -214.2 -362.2 -465.4 -484.2 M-1 .7892 .7992	FT/SEC -534.5 -503.1 -575.0 -645.7 -823.9 -840.4 -869.2 M-2	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1 857-7 877-2 M*-1 -5050 -5219	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 16.350 21.140 23.970 26.790 28.860 29.570 INCS DESREE 3.32	IN 18.580 19.110 19.1740 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 7.39 7.64	FT/SEC 877.6 897.6 897.6 897.6 835.9 783.7 736.6 684.5 664.0 DEV DEGREE 16.93 20.60 22.46 18.86	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN DEGREE 52-77 46-59 42-82 38-04	FT/SEC 525.6 5524.6 5524.6 611.6 618.6 588.5 586.8 535.3 CAMBER DEGREE 62.5 57.06 57.06	FT/SEC 537.6 557.6 564.3 604.2 599.5 588.6 571.5 539.6 539.6 50LIDTY	FT/SEC 702.8 688.3 557.0 569.2 481.1 415.1 391.1 393.0 D-FAC .5713 .5435 .4485	FT/SEC 45.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2 8.8 0MEGA-B	DEGREE 53.21 53.21 49.92 42.92 37.86 34.92 33.62 35.00 36.28 40.05-P TOTAL 0.0416 0.0271	DEGREE   44	DEGREE -19-78 -19-78 -10-34 4-06 19-05 30-70 37-17 39-74 42-13 PO2/0 PO1 S -9501 -9416 -9416 -97-04	DEGREE 44.63 42.45 41.7.16 43.57 51.82 57.33 59.46 OMEGA-B HOCK -0000 -0000	FT/SEC 558-5 558-5 580-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL -0000 -0000 -0000	FT/SEC /55.2 753.4 755.0 834.2 881.3 952.3 1002.9 998.8 1009.8 EFF-P STATIC .7992 .7651 .7651	FT/SEC 158.8 158.8 103.8 -44.0 -214.2 -362.9 -465.4 -484.2 M-1 .7892 .7910 .7793 .7481	FT/SEC -534.5 -503.1 -575.0 -645.7 -825.9 -840.4 -869.2 M-2 .4657 .4833 .5293	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1 857-7 877-2 M'-1 -5050 -5219 -5508	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M*-2 .6565 .6531
% SPAN 5 10 15 30 50 70 85 90 95 % \$2AN 5 10 15 30	DIA-1 IN 17-720 16-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE 3-92 3-38	IN 18-580 19-110 19-740 21-600 26-880 28-900 30-270 INCM DEGREE 7-39 7-64 7-32 5-17 3-87	FT/SEC 877.6 862.6 670.0 835.9 763.7 736.6 684.5 664.0 DEVEL 16.93 20.60 22.46 16.86	FT/SEC 537-9 537-9 557-9 568-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN DEGREE 52-77 46-59 42-82 38-84	FT/SEC 525.6 552.6 552.6 611.8 611.8 618.6 608.6 508.5 500.8 535.3 CAMBER DEGREE 62.59 57.0 63.7 44.77	FT/SEC 537.6 537.6 564.3 604.2 599.5 571.5 539.4 514.0 SOLIDTY 2.1078 2.0308 2.107847	FT/SEC 702.8 688.3 557.0 569.2 451.1 391.1 392.4 393.0 D-FAC .5713 .5435 .4053 .4053	FT/SEC 45.4 45.4 45.4 45.4 45.4 45.4 45.4 45.4 45.4 18.2	DEGREE 53.21 51.25 49.04 42.92 37.86 34.29 33.62 35.00 36.28 40.05-PP TOTAL 0.0416 0.0271 0.0271	DEGREE (	DEGREE -19-75 -15-78 -10-34 4-06 19-05 30-76 37-17 39-77 42-13 P02/ P01 SI -94-18 -94-18 -94-18 -97-24	DEGREE 44.63 42.44.72 43.55 47.16 51.00 55.26 57.36 59.46 0000 0000	FT/SEC 558-5 574-1 580-1 614-7 655-7 708-6 738-9 721-8 FF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 753-2 753-4 753-4 753-4 834-2 881-3 952-3 1002-9 998-8 1009-9 STATIC -7992 -7651 -8336 -8715	FT/ SEC 188.8 156.1 103.6 -44.0 -214.2 -362.9 -486.0 -484.2 M-1 .7892 .7910 .7793 .7793 .6993	FT/SEC -534-5 -503-1 -575-0 -645-7 -823-9 -840-4 -869-2 M-2 -4657 -4633 -5293 -5293 -5293	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 837-1 857-7 877-2 M'-1 -5050 -5219 -5508	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563 .7281
% SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50	DIA-1 IN 17.720 16.350 19.70 23.970 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.32 3.32 -3.23 -3.27	IN 18-580 19-110 19-740 21-600 24-200 28-900 29-600 30-270 INCM DEGREE 7-39 7-64 7-32 7-3-87 3-87 3-87 3-87 3-87	FT/SEC 877.6 822.6 870.0 835.9 763.7 736.6 684.5 694.0 DEV DESPEE 16.93 20.60 18.86 16.12 15.82	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OEGREE 46-59 42-42 38-04 32-49 31-26	FT/SEC 525-6 525-6 570-2 611-8 618-6 608-6 588-5 560-8 535-3 CAMBER 62-59 62-59 57-06 51-72 44-74 44-23 45-23	FT/SEC 537.6 555.4 564.3 604.2 598.5 571.5 539.4 514.0 SOLIDTY 2.1078 2.1078 2.1078 2.1078 1.5493 1.5493 1.2868	FT/SEC 702.8 688.3 657.0 569.2 451.1 415.1 392.4 393.0 D-FAC .5713 .5435 .5160 .4485 .4053 .3875 .3980	FT/SEC 45.4 45.4 45.4 69.5 51.5 56.3 31.0 14.4 18.2 8.8 0MEGA-B .1482 .1713 .1632 .0954 .0659	DEGREE 53.21 51.25 49.04 42.92 53.62 53.62 53.62 53.62 50.05 50.28 50.05 60.05	D:GREE   144   4.66   7.02   4.87   5.36   1.45   1.92   .98   LOSS-P   PROFILE   0.352   0.946   0.271   .0200   0.956   0.25	DEGREE -19.78 -15.78 -10.34 4.06 19.05 30.76 37.17 39.74 42.13 P02/6 P01 S .9459 .9459 .9827 .9887	DEGREE 44.63 42.45 41.72 43.57 51.61 57.36 59.40 0000 0000 0000 0000	FT/SEC 558-5 558-5 560-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL -0000	FT/SEC 750.2 750.0 834.2 881.3 952.3 1002.9 998.8 1009.6 EFF-P STATIC .7661 .8336 .8712 .8368	FT/ SEC 188.8 158.8 159.8 -44.0 -214.2 -362.9 -465.4 -484.2 M-1 .7892 .7910 .7793 .7481 .6949 .6259	FT/SEC -534-5 -503-1 -575-0 -645-7 -823-9 -840-4 -869-2 M-2 M-2 .4657 .4935 .5263 .52657 .4991	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M*-1 -5050 -5166 -5219 -5508 -689 -6537	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6531 .6563 .7281 .7706 .8334 .8755
% SPAN 5 10 15 30 50 70 85 90 95 % \$2AN 5 10 15 30 50 70 85	01A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.42 3.38 2.99 -371.62 -3.23 -3.17	IN 18.580 19.110 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 7.39 7.64 7.32 5.17 3.87	FT/SEC 877.6 897.6 697.0 635.9 763.6 7,06.6 664.5 664.0 DEV DEGREE 16.93 20.60 16.12 15.80 16.12	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OEGREE 52-77 46-52 38-04 32-49 31-28 33-17	FT/SEC 525.6 525.6 570.2 611.8 618.6 608.5 588.5 560.8 535.3 CAMBER DEGREE 62.5 59.5 62.5 49.7 49.23 45.28 45.9	FT/SEC 537.6 537.6 564.3 604.2 579.5 571.5 539.4 514.0 SOLIDTY 2.10784 2.10784 2.10784 2.10784 3.10888 3.	FT/SEC 702.8 688.3 657.0 569.2 451.1 415.1 392.4 393.0 D-FAC .5713 .5405 .5160 .4485 .4053 .3876 .3980 .4291	FT/SEC 45.4 46.4	DEGREE 53.21 53.21 42.92 37.86 34.99 33.62 35.00 36.28 LOSS-P TOTAL 0416 0271 0256 0256 0366	DEGREE   .44 4.66 7.02 4.87 5.36 3.01 1.45 1.92 .98 LOSS-P PROFILE .0352 .0420 .0420 .0271 .0271 .0276 .0276	DEGREE -19-73 -15-73 +06 19-05 30-70 37-17 39-74 42-13 P02/0 P01 S -9501 -9416	DEGREE 44.63 42.45 41.7.16 43.57 51.82 57.36 59.46 0000 0000 0000 0000 0000 0000	FT/SEC 558-5 558-5 580-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	FT/SEC 758-2 758-2 758-9 834-2 884-3 952-3 1002-9 998-8 1009-8 EFF-P SYATIC -7992 -7651 -7651 -8336 -8715 -8704 -8368 -7887	FT/SEC 188.8 158.8 103.8 -44.0 -214.2 -362.9 -465.4 -484.2 M-1 .7892 .7913 .7481 .6993 .6549 .6259	FT/SEC -534.5 -503.1 -575.0 -645.7 -823.9 -840.4 -869.2 M-2 .4657 .4935 .5293 .5265 .5199 .4693	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M'-1 .5050 .5166 .5219 .5508 .5844 .6289 .6537 .6428	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563 .7281 .7706 .8755 .8684
% SPAN 5 10 15 30 50 70 85 90 95 95 10 15 30 50 70 85	DIA-1 IN 17.720 16.350 19.70 23.970 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.32 3.32 -3.23 -3.27	IN 18.580 19.110 21.600 24.200 26.880 29.600 30.270 INCM DEGREE 7.39 7.64 7.32 5.17 3.87	FT/SEC 877.6 897.6 697.0 835.9 783.7 736.6 664.5 664.0 DEV DEGREE 16.93 20.60 22.46 16.12 15.82 16.18	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OEGREE 52-77 46-52 38-04 32-49 31-28 33-17	FT/SEC 525.6 525.6 570.2 611.8 618.6 608.5 588.5 560.8 535.3 CAMBER DEGREE 62.5 59.5 62.5 49.7 49.23 45.28 45.9	FT/SEC 537.6 555.4 564.3 604.2 598.5 571.5 539.4 514.0 SOLIDTY 2.1078 2.1078 2.1078 2.1078 1.5493 1.5493 1.2868	FT/SEC 702.8 688.3 657.0 569.2 451.1 415.1 392.4 393.0 D-FAC .5713 .5435 .5160 .4485 .4053 .3875 .3980	FT/SEC 45.4 46.4	DEGREE 53.21 53.21 42.92 37.86 34.99 33.62 35.00 36.28 LOSS-P TOTAL 0416 0271 0256 0256 0366	DEGREE   .44 4.66 7.02 4.87 5.36 3.01 1.45 1.92 .98 LOSS-P PROFILE .0352 .0420 .0420 .0271 .0271 .0276 .0276	DEGREE -19-73 -15-73 +06 19-05 30-70 37-17 39-74 42-13 P02/0 P01 S -9501 -9416	DEGREE 44.63 42.45 41.7.16 43.57 51.82 57.36 59.46 0000 0000 0000 0000 0000 0000	FT/SEC 558-5 558-5 560-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL -0000	FT/SEC 758-2 758-2 758-9 834-2 884-3 952-3 1002-9 998-8 1009-8 EFF-P SYATIC -7992 -7651 -7651 -8336 -8715 -8704 -8368 -7887	FT/SEC 188.8 158.8 103.8 -44.0 -214.2 -362.9 -465.4 -484.2 M-1 .7892 .7913 .7481 .6993 .6549 .6259	FT/SEC -534-5 -503-1 -575-0 -645-7 -823-9 -840-4 -869-2 M-2 M-2 .4657 .4935 .5263 .52657 .4991	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M'-1 .5050 .5166 .5219 .5508 .5844 .6289 .6537 .6428	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563 .7281 .7706 .8755 .8684
% SPAN 5 10 15 30 50 70 85 90 95 % \$2AN 5 10 15 30 50 70 85	01A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.42 3.38 2.99 -371.62 -3.23 -3.17	IN 18-580 19-110 19-740 21-600 24-200 28-900 29-600 30-270 INCM DEGREE 7-39 7-64 7-32 5-17 3-87 3-87 3-87 3-87 3-87	FT/SEC 877.6 882.6 87.6 87.6 835.9 763.7 736.6 684.5 664.0 DEV DEV DE REE 16.93 22.46 16.86 16.82 17.63	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-8 571-7 539-8 514-0 TURN OFGREE 746-59 42-82 38-04 31-26 32-17 33-98	FT/SEC 525.6 552.6 570.2 611.6 610.6 608.6 588.5 560.8 535.2 CAMBER DEGREE 62.5 57.0 57.0 57.0 44.7 45.2 45.2 45.2 45.2 46.7	FT/SEC 537.6 555.6 555.6 599.5 588.5 571.5 539.4 514.0 SOLIDTY 2.1078 2.1078 2.1078 1.9485 1.5493 1.2868 1.2555 1.2271	F1/SEC 702.8 688.3 657.0 569.2 451.1 391.1 392.4 393.0 D-FAC .5713 .5435 .4053 .3875 .3980 .4291 .4615	FT/SEC 45.4 46.7	DEGREE 53.21 53.21 42.92 37.86	DEGREE   444   4.66   7.02   4.87   5.36   1.45   1.92   .98   1.95   1.92   1.	DEGREE -19.78 -15.78 -10.34 4.06 19.05 30.70 37.17 39.74 42.13 P02/0 P01 SI .9459 .9704 .9827 .9864 .9864	DEGREE 44.63 42.44 41.47 43.57 51.63 57.36 57.36 59.46 0000 0000 00000 00000	FT/SEC 558-5 558-5 560-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 750-2 750-2 750-0 834-2 881-3 952-3 1002-9 998-8 1009-8 EFF-P STAILC -7992 -7651 -8708 -8715 -8708 -8768 -7887 -7759	FT/SEC 188.8 158.8 159.6 -44.0 -214.2 -362.2 -465.4 -484.2 M-1 .7892 .7913 .7481 .65493 .6259 .6040 .5833	FT/SEC -534.5 -503.1 -575.0 -645.7 -823.9 -840.4 -869.2 M-2 .4657 .4935 .5293 .5265 .4991 .4693 .4693	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M'-1 -5050 -5166 -5219 -5508 -5849 -6537 -6428 -6336	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563 .7281 .7706 .8334 .8755 .8684 .8751
% SPAN 5 10 15 30 50 70 85 90 95 % \$2AN 5 10 15 30 50 70 85	01A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.42 3.38 2.99 -371.62 -3.23 -3.17	IN 18-580 19-110 19-740 21-600 24-200 28-900 29-600 30-270 INCM DEGREE 7-39 7-64 7-32 3-87 3-87 3-87 NCOR-1	FT/SEC 877.6 882.6 892.6 870.0 835.9 763.7 756.6 684.5 694.0 DEV DEGREE 16.93 20.60 18.86 16.12 15.82 17.63	FT/SEC 537-9 557-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OEGREE 52-77 46-52 38-04 32-49 31-28 33-17	FT/SEC 525-6 525-6 570-2 611-8 618-6 688-5 588-5 588-5 588-5 588-5 588-5 59-5 62-5 57-6 51-72 44-74 45-28 45-96 46-75	FT/SEC 537.6 537.6 564.3 604.2 579.5 571.5 539.4 514.0 SOLIDTY 2.10784 2.10784 2.10784 2.10784 3.10888 3.	F1/SEC 702.8 688.3 657.0 569.2 451.1 391.1 392.4 393.0 D-FAC .5713 .5435 .4053 .3875 .3980 .4291 .4615	FT/SEC 45.4 46.4	DEGREE 53.21 53.21 42.92 37.86	DEGREE   444   4.66   7.02   4.87   5.36   1.45   1.92   .98   1.95   1.92   1.	DEGREE -19.78 -15.78 -10.34 4.06 19.05 30.70 37.17 39.74 42.13 P02/0 P01 SI .9459 .9704 .9827 .9864 .9864	DEGREE 44.63 42.44 41.47 43.57 51.63 57.36 57.36 59.46 0000 0000 00000 00000	FT/SEC 558-5 558-5 560-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL .0000 .0000 .0000 .0000 .0000 .0000 .0000	FT/SEC 750-2 750-2 750-0 834-2 881-3 952-3 1002-9 998-8 1009-8 EFF-P STAILC -7992 -7651 -8708 -8715 -8708 -8768 -7887 -7759	FT/SEC 188.8 158.8 159.6 -44.0 -214.2 -362.2 -465.4 -484.2 M-1 .7892 .7913 .7481 .65493 .6259 .6040 .5833	FT/SEC -534.5 -503.1 -575.0 -645.7 -823.9 -840.4 -869.2 M-2 .4657 .4935 .5293 .5265 .4991 .4693 .4693	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M'-1 -5050 -5166 -5219 -5508 -5849 -6537 -6428 -6336	FT/SEC 538.9 554.3 572.6 626.6 702.0 779.7 838.3 858.6 878.0 M'-2 .6565 .6563 .7281 .7706 .8334 .8755 .8684 .8751
% SPAN 5 10 15 30 50 70 85 90 95 % \$2AN 5 10 15 30 50 70 85	01A-1 17.720 16.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 3.42 3.38 2.99 -371.62 -3.23 -3.17	IN 18-580 19-110 19-740 21-600 24-200 26-880 29-600 30-270 INCM DEGREE 7-39 7-64 7-32 3-87 3-87 3-87 3-87 NCOR-1 RPM L	FT/SEC 877.6 882.6 87.6 835.9 763.7 735.8 706.6 684.5 664.0 DEV DEGREE 16.93 22.46 16.12 15.82 17.63 17.63	FT/SEC 537-9 537-9 558-5 606-4 602-2 589-4 571-7 539-8 514-0 TURN OFGREE 32-77 46-59 42-82 38-04 32-17 33-88 35-3-1 LBM/SEC	FT/SEC 525.6 552.6 552.6 570.2 611.8 610.6 608.6 588.5 500.8 535.1 CAMBER 02.5 57.0 57.0 45.28 45.28 45.28 45.28 45.28 45.28 45.28 45.28 45.28	FT/SEC 537.6 555.6 556.3 604.2 599.5 571.5 539.4 514.0 SOLIDTY 2.1078 2.1078 2.1078 1.9485 1.2868 1.2555 1.2271 P02/	FT/SEC 702.8 688.3 557.0 569.2 451.1 391.1 392.4 393.0 D-FAC .5713 .5435 .160 .4485 .4053 .3875 .3980 .4291 .4615 EFF-AD	FT/SEC 45.4	DEGREE 53.21 51.25 49.04 42.92 37.86 34.89 35.62 35.00 36.28 40.05 4	DEGREE   444   4.66   7.02   4.87   5.36   1.45   1.92   .98   1.95   1.92   1.	DEGREE -19.78 -15.78 -10.34 4.06 19.05 30.70 37.17 39.74 42.13 P02/0 P01 SI .9459 .9704 .9827 .9864 .9864	DEGREE 44.63 42.44 41.47 43.57 51.63 57.36 57.36 59.46 0000 0000 00000 00000	FT/SEC 558-5 558-5 580-1 614-7 655-7 708-6 738-5 728-9 721-8 EFF-AD TOTAL -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000 -0000	FT/SEC 753-2 753-4 756-0 834-2 861-3 952-3 1002-9 998-8 1009-8 1009-8 FFF-P STATIC -7651 -7661 -8715 -8704 -8368 -7887 -7759	FT/SEC 188.8 158.8 159.6 -44.0 -214.2 -362.2 -465.4 -484.2 M-1 .7892 .7913 .7481 .65493 .6259 .6040 .5833	FT/SEC -534.5 -534.5 -508.9 -575.0 -645.7 -748.7 -823.9 -840.4 -869.2 M-2 .4657 .4935 .5295 .5295 .5157 .4991 .4693	FT/SEC ( 514-0 532-3 553-2 613-2 695-3 777-1 857-7 877-2 M'-1 -5050 -5166 -5219 -5508 -5849 -6537 -6428 -6336	FT/SEC 538-9 554-3 572-6 626-6 702-0 779-7 838-3 858-6 878-0 M*-2 .6565 .6563 .7281 .7706 .8334 .8755 .8684 .8755 .8684 .8751

ROTOR

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 90% of Design Speed

	DIA-1		V-1	V-2	VM-1	VM-2	VO-1	V0-2	8-1	B-2	B*-1	B'-2	V'-1	V'-2	V0'-1	V0+-2	U-1	U-2
% SPAN	IN	IN F	IT/SFC_	EI/SEC I	FI/SEC I	EI/SEC F	FIZSEC F	TI/SEC C	EGREE D	EGREE (	EGREE 1	DEGREE	FI/SEC F	T/SEC I	ET/SEC !	T/SEC	FT/SEC	FT/SEC
5	13.120	16.030	429.B	895.6	429.6	474.1	• 0	759.8	.00	58.03	41.49	-31.91	573.8	558.6	-380.2	295.3	380.2	464.5
10	14.100	16.790	454.1	872.3	454.1	491.8	• 0	720.3	.00	55.67	41.97	-25,41	610.9	545.1	-408.6	233.8	408.6	486.5
15	15.170	17.580	464.1	845.5	464.1		• 0	679.0	.00	53.42		-18,57	639.2		-439.6	169.6	439.6	509.4
30		19.910	487.4				• 0	597.7	.00	49.83	47.35				-529.7	20.8		
50		23.090	508.0		508.0	499.1	• 0	514.5	.úo	45.86	51.66				-645.9			
70		26.250		659.7					.00	44.27			909.7		-749.9			
85		28.610	507.9				•0	442.7	.00	45.05	58.36		968.3		-824.3			
		29.410		606.7				449.1										
90							• 0		.00	47.82			991.1		-849.6			
95		30.180	508.2		508.2		• 0		.00	50.06	59,81		1010.7			-		
~	INCS	INCM	DEV			OUTDIE	D-FAC C	MEGA-B					EFF-AD_(		M-1	M-2	M'-1	M1-2
% SPAN													TOTAL SH					
5				<del>73,40</del>				2263		.0395	1-4016	.8987	-8937	• 000£	3921	-8083	5245	
10	• 47	7.12	5.63	67.38	65.95	2.2837	•3883	•1695	• 0335	.0335	1.4065	•9143	•9101	•0000	•4151	.7849	•5nn6	•4905
15	1.13	7.41	8.31	62.01	62.94	2.1552	.4321	.1097	.0241	-0241	1.4132	.9389	.9359	00006	.4243	. 758€	5.5868	.4774
30	2.13	7.80	11.35	49.70	53.26	1.9n36	•523ó	.0423	.0111		1.4277	.9702	9687	.0000	.4455	.6962	.6595	.4508
50	3.03	8.01	12.63			1.6897	5499	0166	0047		1.4347	9848		.0000	.4649	.6332		
70	4.27	8.46	12.30			1.5343	5498	.0483	0133		1.4258	9511		-6000	.470ª	.5787		
85	4.99			17.20			5523	.0885	.0231		1.4239		9015		4651	5456		
90	4.86	8.37	12.45			1.4148	5818	.1445	.0363		1.4100				.4666	•5269		
	4.78	8.15	13.97			1.3891	5999	1798	.0432									
95	4.70	0.13	13497	11.69	17.40	1.0891	• 3775	1170	.0432	.0432	1.4023	•8µ83	.7990	•0000	.4647	.5103	•9254	•4707
		NC00-1	4000-1		T004	500								_				
				WC/A-1		P02/	EFF-AD	_						5	5TA-1 51		LANT-1	
		ROM LB		LBM/SEC	T01	P01	*	*								t	EGREE	DEGREE
				SOFT													_	
		6040+0	148.95	33.59	1.1140	1.4226	92.950	93.38							5.0	6.0	86.05	95.02
STA	TOR																	
	DIA-1	D1A-2	V-1	V=2	VM-1	VM-2	V0-1	V0-2	B=1	B-2	B*=1	H• <b>-2</b>	V*-1	V*-2	V0 *-1	V0 • - 2	U-1	U=2
% SPAN		DIA-2		V-2 F1/SFC	VM-1 FT/SEC	VV-2 ET/SEC	VO-1 FIZSEC	V0-2 F1/SEC	B-1 DEGREE	B-2 DEGREE	B'-1 DEGREE							
% SPAN	IN	IN	FI/SEC	FI/SEC	FT/SEC	FT/SEC	FI/SEC	FT/SEC	DEGREE	DEGREE	DEGREE.	DEGREE	FT/SEC	FI/SEC	EI/SEC	ET/SEC	FI/SEC	FT/SEC
	IN 17.720	18.580	809.6	FT/SEC 6 452.4	FT/SEC. 427.6	FT/SEC 450.7	FT/SEC 687.4	F1/SEC -33.2	DEGREE 1 58.12	DEGREE -4.21	DEGREE.	DEGREE 51.73	FT/SEC 461.8	FI/SEC 727.9	ET/SEC 174.0	ET/SEC -571.	FT/SEC 6 513.4	FT/SEC 538.
5 10	17.720 18.350	18.580 19.110	809.6 802.	FI/SEC 5 452.4 7 451.4	#1/SEC 427.6 455.3	FT/SEC 450.7 450.6	687.4 661.1	-33.2 20.6	DEGREE 1 58.12 55.45	DEGREE -4.21 2.62	DEGREE -22.13	DEGREE 51.73 49.79	FT/SEC 461.8 473.3	727.9 698.0	EI/SEC 174.0 129.4	-571. -533.	FI/SEC 6 513.4 1 531.7	FT/SEC 538.4 553.7
5 10 15	17.720 18.350 19.070	18.580 19.110 19.740	809.6 802.7 790.7	FT/SEC 6 452.4 7 451.4 7 456.9	#1/SEC 427.6 455.3 462.6	FT/SEC 450.7 450.6 453.2	FI/SEC 687.4 661.1 626.2	-33.2 20.6 58.1	DEGREE 58.12 55.45 52.37	DEGREE -4.21 2.62 7.30	-22.13 -15.87 -8.69	DEGREE 51.73 49.79 48.59	FT/SEC 3 461.8 9 473.3 9 488.6	FT/SEC 727.9 698.0 685.1	EI/SEC 174.0 129.4 73.7	FT/SEC -571. -533. -513.	FT/SEC 6 513.4 1 531.7 9 552.6	FT/SEC 538.4 553.7 553.7
5 10 15 30	1N 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	809.6 802.7 790.7	FI/SEC 6 452.4 7 451.4 7 456.9 1 513.3	#27.6 427.6 455.3 462.6 519.6	#50.7 #50.6 #53.2 508.8	FI/SEC 687.4 661.1 626.2 562.7	F1/SEC -33.2 20.6 58.1 68.2	DEGREE 1 58.12 55.45 52.37 47.27	DEGREE -4.21 2.62 7.30 7.64	DEGREE -22.13 -15.87 -8.69 5.39	DEGREE 51.73 49.79 48.59 47.62	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9	FT/SEC 727.9 698.0 685.1 754.8	174.0 129.4 73.7 -49.8	-571. -533. -513. -557.	FIZSEC 6 513.4 1 531.7 9 552.6 6 612.5	FT/SEC + 538.4 7 553.7 6 572.6 5 625.9
5 10 15 30 50	17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	809.6 802.7 790.7 766.1	FT/SEC 5 452.4 7 451.4 7 456.9 1 513.3 2 550.8	427.6 455.3 462.6 519.6 551.4	450.7 450.6 453.2 508.8 548.0	687.4 661.1 626.2 562.7 495.3	F1/SEC -33.2 20.6 58.1 68.2 55.3	DEGREE 58.12 55.45 52.37 47.27 41.92	DEGREE -4.21 2.62 7.30 7.64 5.76	DEGREE -22.13 -15.87 -8.69 5.39 19.82	DEGREE 51.73 49.79 48.59 47.62 49.63	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1	727.9 727.9 698.0 685.1 754.8 847.1	ETZSEC 174.0 129.4 73.7 -49.8 -199.3	FT/SEC -571. -533. -513. -557. -645.	FT/SEC 6 513.1 1 531.1 9 552.6 6 612.5 9 694.5	FT/SEC 4 538.4 7 553.7 6 572.6 5 625.9 5 701.4
5 10 15 30 50 70	18.350 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200 26.860	809.6 802.7 790.7 766.1 741.2	FT/SEC 6 452.4 7 451.4 7 456.9 1 513.3 2 550.8 9 544.9	427.6 427.6 455.3 462.6 519.6 551.4	#50.6 #50.6 #53.2 508.8 548.0 543.9	FT/SEC 687.4 661.1 626.2 562.7 495.3	F1/SEC -33-2 20-6 58-1 68-2 55-3 33-1	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54	0EGREE -4.21 2.62 7.30 7.64 5.76 3.48	722.13 722.13 715.87 78.69 5.39 19.82	DEGREE 51.73 49.79 48.59 47.62 49.63	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9 7 587.1 3 636.0	727.9 727.9 698.0 685.1 754.8 847.1 923.1	174.0 129.4 73.7 -49.8 -199.3	ET/SEC -571. -533. -513. -557. -645. -745.	FT/SEC 6 513.1 1 531.1 9 552.6 6 612.5 9 694.5 8 770.2	FT/SEC 538.4 538.4 7 553.7 6 572.6 6 625.9 7 701.8 7 778.9
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.860 25.900	809.6 802.7 790.7 766.1 741.2 707.9	FT/SEC 452.4 7 451.4 7 456.9 1 513.3 2 550.8 9 544.9 534.7	#27.6 427.6 455.3 462.6 519.6 551.4 545.9	#50.6 #50.6 #53.2 508.8 548.0 543.9	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51	0EGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11	722.13 722.13 715.87 78.69 5.39 19.82 30.78	DEGREE 3 51.73 49.79 48.59 47.62 49.6 1 53.86 56.84	FT/SEC 461.8 473.3 488.6 522.9 587.1 636.0 663.7	727.9 727.9 698.0 685.1 754.8 847.1 923.1 976.9	174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3	FT/SEC -571. -533. -513. -557. -645. -745. -817.	FT/SEC 6 513.4 1 531.7 9 552.6 6 612.5 9 694.5 8 770.2 7 836.2	FT/SEC 538.4 538.4 7 553.7 6 572.6 6 625.9 7 701.4 2 778.9 2 837.4
5 10 15 30 50 70 85 90	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.860 26.900 29.600	809.6 809.6 802.7 790.7 766.1 741.2 707.9 686.9	FT/SEC 452.4 451.4 456.9 1 513.3 550.8 9 544.9 534.7 4 513.7	#27.6 #27.6 #55.3 #62.6 519.6 551.4 545.9 530.6 504.0	FT/SEC 450.7 450.6 453.2 508.8 548.0 543.9 534.3 513.2	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.00 39.28	DEGREE 51.73 49.79 48.59 47.62 49.61 53.86 56.84	FT/SEC 461.8 473.3 488.6 522.9 7587.1 636.0 663.7 651.0	FT/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9	ET/SEC 174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3	FT/SEC -571. -533. -513. -557. -645. -745. -817. -836.	FT/SEC 6 513.4 1 531.7 9 552.4 6 612.5 9 694.5 8 770.2 7 836.2 8 856.6	FT/SEC 4 538.4 7 553.7 6 572.6 6 625.9 7 701.4 2 778.9 8 37.4 8 657.7
5 10 15 30 50 70 85	17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.860 25.900	809.6 809.6 802.7 790.7 766.1 741.2 686.9 672.4	FT/SEC 452.4 451.4 456.9 1 513.3 550.8 9 544.9 534.7 4 513.7	#27.6 #27.6 #55.3 #62.6 519.6 551.4 545.9 530.6 504.0	FT/SEC 450.7 450.6 453.2 508.8 548.0 543.9 534.3 513.2	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45	0EGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.00 39.28	DEGREE 51.73 49.79 48.59 47.62 49.61 53.86 56.84	FT/SEC 461.8 473.3 488.6 522.9 7587.1 636.0 663.7 651.0	FT/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9	174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3	FT/SEC -571. -533. -513. -557. -645. -745. -817. -836.	FT/SEC 6 513.4 1 531.7 9 552.4 6 612.5 9 694.5 8 770.2 7 836.2 8 856.6	FT/SEC 4 538.4 7 553.7 6 572.6 6 625.9 7 701.4 2 778.9 8 37.4 8 657.7
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.866 26.866 26.900 29.600	809.6 809.6 802.7 790.7 766.1 741.2 707.9 686.9 672.4	FT/SEC 6 452.4 7 451.4 7 456.9 1 513.3 2 550.8 2 544.9 5 34.7 4 493.1	#1/SEC 427.6 455.3 462.6 519.6 551,4 545.9 530.0 480.4	FT/SEC 450.7 450.6 453.2 508.8 548.0 543.9 533.3 492.9	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9 444.9 451.1	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.9 12.8	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45 43.20	0EGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.06 41.50	DEGREE 3 51.73 7 49.79 9 48.59 9 47.62 2 49.63 1 53.83 1 53.83 1 53.83 1 53.83 1 50.33	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9 9 587.1 3 636.0 4 663.0 6 641.5	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 981.8 995.0	ETZSEC 174.0 129.4 73.7 -49.8 -1925.5 -325.5 -399.3 -411.9 -425.1	ET/SEC -571. -533. -513. -557. -645. -745. -817. -836. -864.	FI/SEC 6 513.4 1 531.7 9 552.4 6 612.5 9 694.5 8 779.6 7 836.6 8 856.6	FT/SEC 4 538.4 7 553.7 6 572.6 6 572.6 7 701.4 2 778.4 2 837.4 8 657.7 2 877.1
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.860 26.900 29.600	809.6 809.6 802.7 790.7 766.1 741.2 707.9 686.9	FT/SEC 6 452.4 7 451.4 7 456.9 1 513.3 2 550.8 2 544.9 5 34.7 4 493.1	#1/SEC 427.6 455.3 462.6 519.6 551,4 545.9 530.0 480.4	FT/SEC 450.7 450.6 453.2 508.8 548.0 543.9 533.3 492.9	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.9 12.8	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45 43.20	0EGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.06 41.50	DEGREE 3 51.73 7 49.79 9 48.59 9 47.62 2 49.63 1 53.83 1 53.83 1 53.83 1 53.83 1 50.33	FT/SEC 461.8 473.3 488.6 522.9 7587.1 636.0 663.7 651.0	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 981.8 995.0	ET/SEC 174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3	FT/SEC -571. -533. -513. -557. -645. -745. -817. -836.	FT/SEC 6 513.4 1 531.7 9 552.4 6 612.5 9 694.5 8 770.2 7 836.2 8 856.6	FT/SEC 4 538.4 7 553.7 6 572.6 6 625.9 7 701.4 2 778.9 8 37.4 8 657.7
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.860 26.900 29.600 30.270	809.6 809.6 802.7 790.7 766.1 707.9 686.9 672.4 659.0 DEV	FT/SEC 6 452.4 7 451.4 1 513.3 2 550.8 9 544.9 9 534.7 1 513.7 1 URN DEGREE	#1/SEC 427.6 455.3 462.6 551.4 545.5 530.6 504.0 480.4 CAMBER DEGREE	FT/SEC 450.7 450.6 453.2 508.8 548.0 543.9 534.3 513.2 492.9 SOLIDTY	FT/SEC 667.4 661.1 626.2 562.7 495.3 450.7 436.9 444.9 451.1	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.9 12.8 OMEGA-B	DEGREE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.00 37.00 41.50	DEGREE 3 51.73 7 49.79 9 48.59 9 47.62 2 49.63 1 53.83 1 53.83 1 56.84 1 50.33	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9 9 587.1 3 636.0 4 663.0 6 641.5	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.8 995.0	ETZSEC 174.0 129.4 73.7 -49.8 -1925.5 -325.5 -399.3 -411.9 -425.1	ET/SEC -571. -533. -513. -557. -645. -745. -817. -836. -864.	FI/SEC 6 513.4 1 531.7 9 552.4 6 612.5 9 694.5 8 779.6 7 836.6 8 856.6	FT/SEC 4 538.4 7 553.7 6 572.6 6 572.6 7 701.4 2 778.4 2 837.4 8 657.7 2 877.1
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.860 26.900 29.600 30.270	809.6 809.6 802.7 790.7 766.1 707.9 686.9 672.4 659.0 DEV	FT/SEC 6 452.4 7 451.4 1 513.3 2 550.8 9 544.9 9 534.7 1 513.7 1 URN DEGREE	#1/SEC 427.6 455.3 462.6 551.4 545.5 530.6 504.0 480.4 CAMBER DEGREE	FT/SEC 450.7 450.6 453.2 508.8 543.9 534.3 513.2 492.9 SOLIDTY	FT/SEC 667.4 661.1 626.2 562.7 495.3 450.7 436.9 444.9 451.1	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 CMEGA-B	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45 43.20 LOSS-P	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-P	DEGREE -22.13 -15.87 -8.69 5.39 19.82 30.78 37.00 39.28 41.50 P02/	DEGREE 3 51.7: 49.7: 9 47.6: 9 47.6: 2 49.6: 1 53.8: 0 56.8: 1 58.4: 0 0.3: 0 0.3:	FT/SEC 3 461.8 9 473.3 2 522.9 7 587.1 3 636.0 4 663.7 7 651.0 0 641.5 BEFF-AD	FT/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P	ETZSEC 174.0 129.4 73.7 -49.3 -199.3 -325.5 -399.3 -411.9 -425.1	ET/SEC -571. -533. -513. -557. -645. -817. -836. -864. M-2	FT/SEC 6 513.4 1 531.5 552.6 6 612.5 9 694.5 8 779.2 7 836.2 8 856.6 3 876.2	FT/SEC # 538.4 553.7 553.7 572.6 5 625.6 701.4 2 778.4 837.4 857.7 877.1
5 10 15 30 50 70 85 90 95	1N 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25	18.580 19.110 19.740 21.600 24.200 26.860 26.860 29.600 30.270 INCH DEGREE 12.22	809.6 809.6 802.7 790.7 766.1 741.2 707.9 686.9 672.4 659.0 DEV	FT/SEC 6 452.4 7 456.9 1 513.3 2 550.8 9 534.7 4 93.1 TURN DEGREE 6 62.33	FT/SEC 427.6 452.6 519.6 551.4 545.5 530.6 480.4 CAMBER DEGREE 62.53	FT/SEC 450.7 453.2 508.8 548.0 534.3 513.2 492.9 SOLIDTY	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9 451.1 D-FAC	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 CMEGA-B	DEGREE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0412	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-P PROFILE	DEGREE -22-13-15-87-5-35-39-28-41-50-27-9489	DEGREE 3 51.73 49.75 48.55 49.65 49.65 49.65 56.84 56.84 50.33	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1 3 636.0 0 641.5 0 641.5	FT/SEC 727.9 698.0 685.1 754.7 923.1 976.9 981.8 995.0 EFF-P STATIC .7834	ET/SEC 174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3 -411.9 -425.1 M-1	ET/SEC -571533513513645745817836864. M-2	FT/SEC 6 513.4 1 551.3 9 552.4 6 612.5 9 694.4 7 836.6 8 856.6 3 876.6 M*=1 8 .4124	FT/SEC 4 538.4 538.4 553.7 6 572.6 625.9 701.1 778.1 837.1 837.1 842
5 10 15 30 50 70 85 90 95 % SPAN 5	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 5.25	1N 18.580 19.110 19.740 21.600 24.200 26.860 29.600 30.270 1NCW DEGREE 12.22	809.6 809.6 802.7 790.7 766.1 741.2 606.9 679.0 DEV CEGREE 12.28	FT/SEC 6 452.4 7 456.9 1 513.3 2 544.9 9 534.7 4 93.1 TURN DEGREE 3 62.33 5 52.83	# 1	FT/SEC 450.7 453.2 508.8 548.0 543.2 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320	FT/SEC 687.4 661.1 626.2 562.7 495.3 450.7 436.9 451.1 D-FAC	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B	DEGREE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0514	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-P PROFILE .0514	DEGREE -22.13 -15.87 -8.69 -5.39 -19.82 -30.78 -37.01 -39.28 -41.50 -901 -91.50 -9396	DEGREE 3 51.73 49.75 49.75 47.62 49.65 1 53.86 1 58.43 1 58.43 1 50.36 1 00.36 1 00.36	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9 5 587.1 3 636.0 4 663.7 7 651.0 641.5 BEFF-AD TOTAL 0 .0000	FT/SEC 727.9 698.0 685.1 754.8 847.1 923a1 976.9 981.8 995.0 EFF-P STATIC .7834	ET/SEC 174.0 129.4 73.7 -49.8 -199.3 -325.5 -399.3 -411.9 -425.1 M-1	FT/SEC -571533513513645745745836864. M-2 .389	FT/SEC 6 513.41 19 552.46 6 612.5 8 770.27 7 836.6 8 856.6 3 876.2 M*=1	FT/SEC 4 538.4 538.4 553.7 6 572.6 625.9 701.2 778.9 837.4 847.1 M*-2 4 .6273 9 .6017
5 10 15 30 50 70 85 90 96 <b>% SPAN</b> 5 10	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 8.25 7.444	18.580 19.110 19.740 21.600 24.200 26.860 26.800 29.600 30.270 INCN DEGREE 12.22 11.68	809.6 809.6 809.7 766.7 741.2 707.5 646.9 672.4 659.0 DEV DERFE 12.55 22.71	FT/SEC 452.4 7 451.4 7 456.9 1 513.3 550.8 2 54.7 4 513.7 4 93.1 TURN DEGREE 6 2.33 1 45.07	FT/SEC 427.6 427.6 462.6 519.6 519.6 530.0 480.4 CAMBER DEGREE 62.53 56.97	FT/SEC 450.76 453.2 508.8 548.0 534.3 513.2 492.9 SOLIDTY 2.1085 2.032.0 1.9522	FI/SEC 687.4 687.4 626.2 562.7 495.3 450.7 436.9 444.9 751.1 D-FAC .6476 .6297	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 CMEGA-B .1742 .2177	DEGREE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0412 .0553	DEGREE -4.21 2.62 7.64 5.76 5.76 2.11 2.32 1.49 LOSS-P PROFILE .0412 .0553	DEGREE -22-13-15-15-15-15-15-15-15-15-15-15-15-15-15-	DEGREE 3 51.73 49.75 9 48.55 9 47.62 49.6 1 53.88 1 58.47 0 00.36 0 0000 0 0000 0 0000	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 DEFF-AD TOTAL 1 0000 0 0000 0 0000	FT/SEC 727.9 698.0 685.1 754.8 847.1 976.9 981.8 995.0 EFF-P STATIC .78347 .7164	FIZSEC 174.0 129.7 -49.8 -199.3 -325.5 -399.3 -411.9 -425.1 M-1	FT/SEC -571531513513513745817836864. M-2 .389	FT/SEC 6 513.4 19 552.4 6 612.5 9 770.2 77 836.4 8 856.6 3 876.4 M*-1 8 .412.2 2 .4354	FT/SEC 4 538.4 538.4 5538.4 5538.4 5625.5 625.5 778.2 837.4 837.4 84.627.1 84.627.1 84.627.1 857.1
5 10 15 30 50 70 85 96 96 % SPAN 5 10 15	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 8.25 7.44 6.49	1N 18.580 19.110 19.740 21.600 24.200 26.860 26.860 29.600 30.270 INCA DEGREE 12.22 11.68 10.81	802. 809. 790. 766. 741. 707. 686. 672. 659. DEV DEV DEGREE 12.28 12.28 12.37 21.80	FT/SEC 6 452.4 7 451.4 7 456.9 1 513.3 2 550.8 2 534.7 4 513.7 4 93.1 TURN DEGREE 3 62.33 52.83 1 45.07 30.63	FT/SEC 427.6 427.6 452.6 519.6 551.4 5545.9 504.0 480.4 CAMBER DEGREE 62.53 59.51 56.97	FT/SEC 450.7 450.2 508.8 548.0 534.3 513.2 492.9 SOLIDITY 2.1085 2.0320 1.9522 1.7603	FI/SEC 687.4 667.2 666.2 562.7 450.7 436.9 444.9 451.1 D-FAC .6476 .6297 .6023 .5106	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 OMEGA-B .1742 .2090 .2177 .1439	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0514 .0553 .0405	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0514 .0554	DEGREE -22,13 -15,85 -8,85 -5,39 19,82 30,78 37,00 39,28 41,50 PO2/PO1 5 9,9489 9,9366 9616	DEGREE 3 51.77 9 48.55 9 47.62 9 49.66 1 53.88 1 53.88 1 50.30 0 0000 0 0000 0 0000 0 0000	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1 3 636.0 4 663.7 7 651.0 0 641.5 0 0000 0 0000 0 0000 0 0000	FI/SEC 727.9 698.0 698.0 754.8 847.1 923.1 976.9 961.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7741	ETZSEC 174-0 129-4 73-7 -49-8 -199-3 -325-5 -399-3 -411-9 -425-1 M-1 -7192 -7140 -7041 -6817	FT/SEC -571571513551355135513545817836864. M-2 .389 .394	FT/SEC 6 513.4 1 551.5 9 694.5 8 770.2 7 836.2 8 856.6 8 876.2 M*=1 8 .4125 1 .4235 8 .4920	FT/SEC 4 538.4 538.4 5538.4 5538.4 6 572.6 625.5 701.4 2 837.4 8 657.7 8 627.1 8 627.1 6 627.1
5 10 15 30 50 70 85 90 95 <u>% SPAN</u> 5 10 15 30	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 7.44 6.49 4.99 2.53	18.580 19.110 19.740 21.600 26.860 26.900 30.270 INCA DEGREE 11.68 10.81 9.75 7.99	802. 802. 790. 766. 741. 741. 606. 672. 659. DEV tegree 12.28 19.53 22.71 21.88	FT/SEC 452.4 452.4 7 456.9 1 513.3 2 548.9 9 534.7 4 93.1 TURN EEGREE 3 62.33 5 52.83 1 45.07 3 30.63 3 36.16	FT/SEC. 427.6 4452.6 519.6 519.6 530.6 530.6 500	FT/SEC 450.6 453.2 508.8 548.0 543.9 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320 1.75603 1.75603	FT/SEC 667.4 661.1 626.2 562.7 495.3 495.3 495.1 10-FAC 6297 6023 5106 64468	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 OMEGA-B .1742 .2090 .2177 .1439 .0748	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0514 .0514 .0553 .0240	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0513 .0402	DEGREE -22,13 -15,67 -8,65 5,39 19,82 30,7E 37,00 39,28 41,50 PO2/ PO1 3 9396 9356 9356 95616 9616	DEGREE 3 51.77 49.77 49.77 48.59 47.66 48.51 55.88 49.66 50.30 CMEGA-EBHOCK 00000 00000 00000 00000 00000 00000 0000	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 3 587.1 3 536.0 4 663.7 6 51.0 0 641.5 3 671.0 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .77741 .8575	FIZSEC 174-0 129-0 129-7 1-49-8 -129-3 -325-5 -399-3 -411-9 -425-1 M-1 -7192 -7140 -7041 -6590	FT/SEC -571571551355135513645745817836864864864864478	FT/SEC 6 513.4 1 551.3 9 552.4 6 612.5 9 694.4 7 836.6 8 856.6 3 876.6 M*-1 8 .4123 1 .4233 2 .4354 8 .4026 8 .5176	FT/SEC 4 538.4 538.4 553.7 6 572.6 6 25.9 7 78.1 2 837.1 8 77.1 M - 2 4 .6273 4 .6273 6 .6317 6 .6
5 10 15 30 50 70 85 90 95 \$SPAN 5 10 15 30 50 70	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREC 8.257 6.49 4.99 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.866 25.900 30.270 INCH DEGREE 12.22 11.68 10.81 9.75 7.99	ETYSEC 809. 809. 809. 790. 766. 707. 686. 672. 659. DEV CEGREE 12.28 19.55 22.77 21.80 16.32	FT/SEC 6 452.4 7 451.4 7 451.3 1 513.3 2 54.7 4 513.7 0 493.1 TURN DEGREE 3 52.33 1 45.07 3 36.63 3 36.07	FT/SEC 427.6 4482.6 519.6 551.4 5545.9 530.0 480.4 CAMBER 0EGREE 59.53 51.77 51.77 44.18	FT/SEC 450.76 453.2 508.8 548.0 543.9 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320 1.9522 1.7603 1.5826	FT/SEC 667.4 661.1 626.2 562.7 495.3 450.7 436.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4462	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2090 .2177 .1439 .0748	DEGREE 58.12 55.45 52.37 47.27 41.92 39.54 39.51 41.45 43.20 LOSS-P TOTAL .0553 .0412 .0553 .04405	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0513 .0402 .05243	DEGREE -22,13 -15,67 -8,65 -5,35 -19,82 -30,78 -41,50 -9489 -9386 -9618 -9812 -9812	DEGREE 3 51.77 49.77 49.77 48.55 47.66 47.66 47.66 61 58.47 61 58.47 61 61 61 61 61 61 61 61 61 61 61 61 61	FT/SEC 3 461.8 9 473.3 9 488.6 2 522.9 7 587.1 3 536.0 4 663.7 7 651.0 0 641.5 BEFF-AD TOTAL 0 .0000 0 .000	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 991.8 995.0 EFF-P STATIC .7387 .7164 .7741 .8575 .8617	FIZSEC 174.0 129.0 129.7 -49.8 -199.3 -325.5 -399.3 -411.9 -425.1 M-1 .7192 .7140 .7041 .6590 .6255	FT/SEC -571571513513513513513517645845864. M-2 .389 .394 .444 .473	FT/SEC 6 513.41 19 552.4 6 612.5 8 770.2 7 836.2 8 856.6 3 876.2 M*-1 8 .4123 2 .4354 8 .5176 6 .5176	FT/SEC 4 538.4 538.4 5538.4 553.1 6 572.6 625.5 778.2 837.4 8 657.7 2 637.4 8 6273 9 .6017 4 .6273 9 .6541 9 .7364
5 10 15 30 50 70 85 90 95 \$SPAN 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 8.25 7.444 4.99 2.53 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.800 29.600 30.270 1NCN DEGREE 12.22 11.68 10.81 9.75 7.99	809. 809. 790. 766. 707. 666. 672. 659. DEV CEGREE 12.28 19.53 22.71 21.88 16.33 16.28 17.12	FT/SEC 452.4 7 456.9 1 513.3 550.8 2 544.7 4 513.7 4 93.1 TURN BEGREE 3 62.33 1 45.07 3 36.06 3 36.06 3 37.40	FT/SEC 427.6 427.6 462.6 519.6 519.6 530.0 480.4 CAMBER 02.531 50.97 51.77 44.49 45.25	FT/SEC 450.7 450.2 508.8 548.0 534.3 513.2 492.9 SOLIDTY 2.1085 2.036.3 1.9522 1.7603 1.5529 1.2873	FI/SEC 687.4 686.2 562.7 495.3 450.7 436.9 444.9 451.1 D-FAC .6476 .6023 .5106 .4468 .44575	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2177 .1439 .0748 .0815	DEGREE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0553 .0405 .0240 .0316	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0553 .0240 3.0316	DEGREE -22,13 -15,84 -15,05 -19,82 -1	DEGREE 3 51.77 9 48.55 9 47.62 2 49.6 1 53.88 1 53.88 1 53.88 1 00.3 0 0000 0 0000	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STAIIC .7834 .7387 .7164 .7741 .8575 .8617	ET/SEC 174.0 129.3 73.7 -49.8 -199.3 -325.5 -399.3 -411.9 -425.1 M-1 -7192 .7140 .6817 .6817 .6258 .6049	FT/SEC -571571513557645817836864. M-2 .389 .394. 4478 .478 .462	FT/SEC 6 513.41 19 552.4 6 612.5 9 694.4 8 856.6 3 876.2 M*-1 8 .4124 12 2 .4354 8 .4026 8 .5176 1 .5584 8 .5584	FT/SEC 4 538.4 538.4 558.4 56 572.6 625.5 701.4 2 837.4 8 627.7 8 77.1 M - 2 4 .627.7 6 .627.7
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.800 29.600 30.270 INCK DEGREE 12.22 11.68 10.81 9.75 7.99 8.10 9.02 10.95	802. 802. 790. 766. 741. 606. 672. 659. DEV DEGREE 12.28 13.57 21.80 16.33	FT/SEC 452.4 7 456.9 1 513.3 2 550.8 2 550.8 2 534.7 4 513.7 4 93.1 TURN DEGREE 3 62.33 52.83 536.16 536.16 537.40 539.13	FT/SEC 427.6 427.6 452.6 519.6 551.4 5545.6 504.0 480.4 CAMBER 62.53 596.97 44.49 44.25 45.95	FT/SEC 450.7 450.2 508.8 548.0 534.3 513.2 492.9 SOLIDITY 2.1085 2.0320 1.9522 1.7603 1.5529 1.3886 1.2873 1.2558	FT/SEC 687.4 667.2 562.7 495.3 450.7 436.9 444.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4468 .4422 .4575 .4870	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2090 .2177 .1439 .0748 .0676 .0815	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0514 .0553 .0240 .0240 .0316	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0514 .0553 .0243 .0316 .0243 .03404 .0405 .040	DEGREE -22,13 -15,67 -8,65 -5,39 19,82 30,7E 37,00 39,28 41,50 PO2/ PO1/ 39,9396 9366 9366 9366 9812 9884	DEGREE 3 51.77 9 48.55 9 47.62 9 49.66 1 53.88 1 56.84 1 0000 1 0000	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1 3 636.0 6 641.5 BEFF-AD TOTAL 0 .0000 0 .0000	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 961.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7741 .8575 .8617 .8352	ET/SEC 174.0 129.4 73.7 -49.8 -199.3 -325.5 -325.5 -411.9 -425.1 M-1 .7192 .7140 .7041 .6817 .6255 .6049 .5896	FT/SEC511551355135513551355135513551355135513864864864864478	FT/SEC 6 513.4 1 551.5 6 612.5 6 612.5 7 836.2 8 856.6 8 856.6 3 876.2 4412.1 4	FT/SEC. 4 538.4 538.4 553.6 6 572.6 6 625.5 701.4 2 837.4 8 657.7 8 627.1 8 627.1
5 10 15 30 50 70 85 90 95 \$SPAN 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 8.25 7.444 4.99 2.53 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.800 29.600 30.270 INCK DEGREE 12.22 11.68 10.81 9.75 7.99 8.10 9.02 10.95	802. 802. 790. 766. 741. 606. 672. 659. DEV DEGREE 12.28 13.57 21.80 16.33	FT/SEC 452.4 7 456.9 1 513.3 550.8 2 544.7 4 513.7 4 93.1 TURN BEGREE 3 62.33 1 45.07 3 36.16 3 36.16 3 37.40	FT/SEC 427.6 427.6 452.6 519.6 551.4 5545.6 504.0 480.4 CAMBER 62.53 596.97 44.49 44.25 45.95	FT/SEC 450.7 450.2 508.8 548.0 534.3 513.2 492.9 SOLIDITY 2.1085 2.0320 1.9522 1.7603 1.5529 1.3886 1.2873 1.2558	FT/SEC 687.4 667.2 562.7 495.3 450.7 436.9 444.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4468 .4422 .4575 .4870	F1/SEC -33.2 20.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2090 .2177 .1439 .0748 .0676 .0815	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0514 .0553 .0240 .0240 .0316	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0514 .0553 .0243 .0316 .0243 .03404 .0405 .040	DEGREE -22,13 -15,67 -8,65 -5,39 19,82 30,7E 37,00 39,28 41,50 PO2/ PO1/ 39,9396 9366 9366 9366 9812 9884	DEGREE 3 51.77 9 48.55 9 47.62 9 49.66 1 53.88 1 56.84 1 0000 1 0000	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000 0 .0000	FI/SEC 727.9 698.0 685.1 754.8 847.1 923.1 976.9 961.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7741 .8575 .8617 .8352	ET/SEC 174-0 129-4 73-7 -49-8 -199-3 -325-5 -325-5 -411-9 -425-1 M-1 -7192 -7140 -7041 -6817 -6255 -6049 -5896	FT/SEC511551355135513551355135513551355135513864864864864478	FT/SEC 6 513.4 1 551.5 6 612.5 6 612.5 7 836.2 8 856.6 8 856.6 3 876.2 4412.1 4	FT/SEC. 4 538.4 538.4 553.6 6 572.6 6 625.5 701.4 2 837.4 8 657.7 8 627.1 8 627.1
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.866 26.900 29.600 30.270 INCN DEGREE 12.22 11.68 10.81 9.75 7.99 8.10 9.02	ETYSEC 809. 809. 790. 766. 707. 606. 672. 659. DEV LEGREE 12.55 19.55 12.77 21.86 16.32 17.12 18.04 17.81	FT/SEC 452.4 7 451.4 7 456.9 1 513.3 550.8 2 544.7 4 513.7 4 93.1 TURN EEGREE 62.33 45.07 33.63 36.06 36.16 36.16 37.40 41.71 41.71	FT/SEC 427.6 452.6 519.6 551.4 530.6 504.0 480.4 CAMBER 62.53 59.97 51.49 44.49 45.25 45.95	FT/SEC 450.7 450.2 508.8 548.0 548.9 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320 1.9522 1.5529 1.3886 1.2873 1.2558	FT/SEC 667.4 661.4 626.2 562.7 495.3 436.9 444.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4462 .4575 .4870 .5225	F1/SEC -33.2 20.6 58.1 68.2 55.3 19.7 20.9 12.8 OMEGA-B .1742 .2177 .1439 .0748 .0815 .1016 .1209	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0513 .0402 .0240 .0316 .0492	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0513 .0405 .0240 .0404 .0404	DEGREE -22,13 -15,82 -15,83 -15,83 -17,82 -1	DEGREE 5 1.77 49,77 9 48,57 9 48,57 9 47,62 9 49,6 1 53,88 1 5	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 0000	FI/SEC 727.9 698.0 695.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7387 .7164 .7387 .7546	ETZSEC 174-0 129-7 -49-8 -199-3 -325-3 -325-3 -411-9 -425-1 M-1 -7192 -7140 -6255 -6049 -5896 -5745	FT/SEC -571571513513513517645817836864. M-2 .389 .3944. 478 .462 .4423	FT/SEC 6 513.41 19 552.4 6 612.5 6 694.2 70 836.6 8 856.6 3 876.6 M*-1 8 .4123 2 .4354 8 .402(8 8 .5176 1 .5586 8 .5644 9 .5711 5 .5576	FT/SEC.4 538.4 538.4 558.4 558.4 558.4 558.4 568
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.800 29.600 30.270 1NCN DEGREE 12.22 11.68 10.81 9.75 7.99 9.02 10.95 12.84	802. 802. 790. 766. 707. 666. 672. 659. 0EV CEGREE 12.26 12.26 12.26 13.57 21.86 16.33 16.32 17.81 WCOR-J	FT/SEC 452.4 7 451.4 7 451.3 1 513.3 550.8 2 54.7 4 513.7 4 93.1 TURN BEGREE 3 62.33 54.07 53.63 36.16 37.63 36.16 37.40 43.11 41.71 LWC/A-1	FT/SEC 427.6 427.6 462.6 519.6 519.6 530.0 480.4 CAMBER 02.53 50.97 51.77 44.49 45.95 45.95 45.95	FT/SEC 450.7 450.2 508.8 548.0 543.2 534.3 513.2 492.9 SOLIDTY 2.1085 2.036.0 1.9522 1.7603 1.2873 1.2873 1.2873	FI/SEC 687.4 687.4 626.2 562.7 495.3 450.9 444.9 751.1 D-FAC .6476 .623 .5106 .4468 .44575 .4870 .5225 EFF-AD	F1/SEC -33.2 208.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2177 .1439 .0748 .0815 .1016 .1209	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0513 .0402 .0240 .0316 .0492	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0513 .0405 .0240 .0404 .0404	DEGREE -22,13 -15,82 -15,83 -15,83 -17,82 -1	DEGREE 5 1.77 49,77 9 48,57 9 48,57 9 47,62 9 49,6 1 53,88 1 5	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 0000	FI/SEC 727.9 698.0 695.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7387 .7164 .7387 .7546	ETZSEC 174-0 129-7 -49-8 -199-3 -325-3 -325-3 -411-9 -425-1 M-1 -7192 -7140 -6255 -6049 -5896 -5745	FT/SEC -5715513551355135513551355136458648648642 .389 .394. 478 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423	FT/SEC 6 513.4 19 552.6 6 612.5 9 694.2 7 836.2 8 856.6 3 876.2 412.5 1 412.5 1 42.5 1 42.5 1 43.5 8 412.5 1 43.5 8 557.6 8 557.6 8 557.6 8 557.6 8 557.6 8 557.6 8 557.6 8 557.6 8 557.6	FT/SEC 4 538.4 538.4 5538.4 5538.4 6025.5 701.4 2 837.4 8 627.7 8 77.1 M - 2 4 .627.1 4 .591.6 6 .654.1 8 .645.6 8 .645.6 8 .654.5 SLANT-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	1N 18.580 19.110 19.740 21.600 24.200 26.800 29.600 30.270 1NCN DEGREE 12.22 11.68 10.81 9.75 7.99 9.02 10.95 12.84	802. 802. 790. 766. 707. 666. 672. 659. 0EV CEGREE 12.26 12.26 12.26 13.57 21.86 16.33 16.32 17.81 WCOR-J	FT/SEC 6 452.4 7 456.9 1 513.3 2 550.8 2 54.7 534.7 493.1 TURN TURN 1 52.83 45.03 5 62.83 1 45.03 3 63.07 2 37.40 3 36.07 2 37.40 3 41.71 LBM/SEC	FT/SEC 427.6 427.6 462.6 519.6 519.6 530.0 480.4 CAMBER 02.53 50.97 51.77 44.49 45.95 45.95 45.95	FT/SEC 450.7 450.2 508.8 548.0 543.2 534.3 513.2 492.9 SOLIDTY 2.1085 2.036.0 1.9522 1.7603 1.2873 1.2873 1.2873	FT/SEC 667.4 661.4 626.2 562.7 495.3 436.9 444.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4462 .4575 .4870 .5225	F1/SEC -33.2 208.6 58.1 68.2 55.3 33.1 19.7 20.9 12.8 0MEGA-B .1742 .2177 .1439 .0748 .0815 .1016 .1209	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0513 .0402 .0240 .0316 .0492	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0513 .0405 .0240 .0404 .0404	DEGREE -22,13 -15,82 -15,83 -15,83 -17,82 -1	DEGREE 5 1.77 49,77 9 48,57 9 48,57 9 47,62 9 49,6 1 53,88 1 5	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 0000	FI/SEC 727.9 698.0 695.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7387 .7164 .7387 .7546	ETZSEC 174-0 129-7 -49-8 -199-3 -325-3 -325-3 -411-9 -425-1 M-1 -7192 -7140 -6255 -6049 -5896 -5745	FT/SEC -5715513551355135513551355136458648648642 .389 .394. 478 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423	FT/SEC 6 513.41 19 552.4 6 612.5 6 694.2 70 836.6 8 856.6 3 876.6 M*-1 8 .4123 2 .4354 8 .402(8 8 .5176 1 .5586 8 .5644 9 .5711 5 .5576	FT/SEC 4 538.4 538.4 5538.4 5538.4 6025.5 701.4 2 837.4 8 627.7 8 77.1 M - 2 4 .627.1 4 .591.6 6 .654.1 8 .645.6 8 .645.6 8 .654.5 SLANT-2
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	18.580 19.110 19.740 21.600 24.200 26.866 25.900 29.600 30.270 INCN DEGREE 12.22 11.68 10.81 9.75 7.99 8.10 9.02 10.95 12.84	ETYSEC 809.6 802.7 790.7 766.7 707.5 686.9 672.6 659.0 DEV tegree 12.28 19.53 22.77 21.80 16.32 17.12 18.04 17.81	FT/SEC 6 452.4 7 456.9 1 513.3 2 54.7 4 550.8 2 54.7 4 93.1 TURN E 52 62.33 6 45.07 5 36.16 5 36.16 5 37.40 4 1.71 L BM/SEC SQFT	FT/SEC 427.6 427.6 462.6 519.6 551.4 530.0 504.0 480.4 CAMBER QEGREE 59.97 51.77 44.19 45.25 45.25 45.25 45.25	FT/SEC 450.7 450.2 508.8 548.0 543.9 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320 1.9522 1.7603 1.3896 1.2873 1.2558 1.2273	FT/SEC 667.4 661.1 626.2 562.7 495.3 436.9 436.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4422 .4575 .4870 .5225 EFF-AD	F1/SEC -33.2 200.6 58.1 68.2 55.3 33.3.1 19.7 20.9 12.8 CMEGA-B .1742 .2090 .2177 .1439 .0748 .0676 .0815 .1016 .1209 EFF-P	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0513 .0402 .0240 .0316 .0492	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0513 .0405 .0240 .0404 .0404	DEGREE -22,13 -15,82 -15,83 -15,83 -17,82 -1	DEGREE 5 1.77 49,77 9 48,57 9 48,57 9 47,62 9 49,6 1 53,88 1 5	FT/SEC 3 461.8 473.3 9 488.6 2 522.9 7 587.1 3 636.0 6 641.5 BEFF-AD TOTAL 0 .0000 0 .0000	FI/SEC 727.9 698.0 695.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7387 .7164 .7387 .7546	ETZSEC 174-0 129-7 -49-8 -199-3 -325-3 -325-3 -411-9 -425-1 M-1 -7192 -7140 -6255 -6049 -5896 -5745	FT/SEC -5715513551355135513551355136458648648642 .389 .394. 478 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423 .4423	FT/SEC 6 513.41 19 552.16 6 612.5 8 770.25 8 856.6 3 876.2 1 423 2 4354 8 4423 2 4354 8 5574 5 574 1 5584 8 564 9 571 1 5587 8 574 1 5587	FT/SEC 4 538.4 538.4 558.4 572.6 625.5 778.2 637.4 6273 6273 6273 6273 6273 6273 637.1 6273 637.1 64.6 64.6 65.6 65.6 64.6 65.6
5 10 15 30 50 70 85 90 95 5 10 15 30 50 70 85	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 8.25 7.44 6.49 2.53 2.02 2.53	18.580 19.110 19.740 21.600 24.200 26.866 25.900 29.600 30.270 INCN DEGREE 12.22 11.68 10.81 9.75 7.99 8.10 9.02 10.95 12.84	ETYSEC 809.6 802.7 790.7 766.7 707.5 686.9 672.6 659.0 DEV tegree 12.28 19.53 22.77 21.80 16.32 17.12 18.04 17.81	FT/SEC 6 452.4 7 456.9 1 513.3 2 550.8 2 54.7 534.7 493.1 TURN TURN 1 52.83 45.03 5 62.83 1 45.03 3 63.07 2 37.40 3 36.07 2 37.40 3 41.71 LBM/SEC	FT/SEC 427.6 427.6 462.6 519.6 551.4 530.0 504.0 480.4 CAMBER QEGREE 59.97 51.77 44.19 45.25 45.25 45.25 45.25	FT/SEC 450.7 450.2 508.8 548.0 543.9 534.3 513.2 492.9 SOLIDTY 2.1085 2.0320 1.9522 1.7603 1.3896 1.2873 1.2558 1.2273	FT/SEC 667.4 661.1 626.2 562.7 495.3 436.9 436.9 451.1 D-FAC .6476 .6297 .6023 .5106 .4422 .4575 .4870 .5225 EFF-AD	F1/SEC -33.2 200.6 58.1 68.2 55.3 33.3.1 19.7 20.9 12.8 CMEGA-B .1742 .2090 .2177 .1439 .0748 .0676 .0815 .1016 .1209 EFF-P	DEGRÉE 58.12 55.45 52.37 47.27 41.92 39.51 41.45 43.20 LOSS-P TOTAL .0513 .0402 .0240 .0316 .0492	DEGREE -4.21 2.62 7.30 7.64 5.76 3.48 2.11 2.32 1.49 LOSS-PPROFILE .0412 .0513 .0405 .0240 .0404 .0404	DEGREE -22,13 -15,82 -15,83 -15,83 -17,82 -1	DEGREE 5 1.77 49,77 9 48,57 9 48,57 9 47,62 9 49,6 1 53,88 1 5	FT/SEC. 3 461.8 473.3 9 488.6 2 522.9 7 587.1 7 651.0 0 641.5 0 FFF-AD TOTAL 0 0000	FI/SEC 727.9 698.0 695.1 754.8 847.1 923.1 976.9 981.8 995.0 EFF-P STATIC .7834 .7387 .7164 .7387 .7164 .7387 .7546	ETZSEC 174-0 129-7 -49-8 -199-3 -325-3 -325-3 -411-9 -425-1 M-1 -7192 -7140 -6255 -6049 -5896 -5745	FT/SEC -57151351351351351351351764574586483693944. 473. 4622. 4423	FT/SEC.6 513.61 6 513.61 9 552.6 6 612.6 9 770.6 8 856.6 8 856.6 3 876.6  M*-1 8 .4123 2 .4354 8 .4026 1 .5586 8 .5641 9 .5715 5 SLANT-1 DEGREE	FT/SEC 4 538.4 538.4 5538.4 5538.4 6025.5 701.4 2 837.4 8 627.7 8 77.1 M - 2 4 .627.1 4 .591.6 6 .654.1 8 .645.6 8 .645.6 8 .654.5 SLANT-2

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR

95% of Design Speed

101	J14						0070	<b></b>	2.6. O	, ccu								
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V0-2	B-1	8-2	8'-1	B1-2	V*-1	V*-2	V0*-1	V01-2	U-1	U-2
% SPAN	IN	IN	FT/SEG-	FT/SEC +	FT/SEC	FT/SEC-F	1/SEC-	FT/SEC (	EGREE C	EGREE D	EGREE I	DEGREE	T/SEG F	T/SEC F	T/SEC 4	T/SEC I	ET/SEC	FT/SEC
5	13.120	16.030	569.2	1070.5	569.2	656.2		845.8		52.19								
10				1057.1			• Û	827.2	.00	51.49	36.62	-25,48	722.5	729.5	-431.1	313.9	431.1	513.3
15	15.170	17,580	<b>592.</b> 5	1026.2	592.5	667.7	• 0	779.0	.00	49.38	38.04	-19.8ó	752.5	711.0	-463.8	241.ó	463.8	537.4
30	18.280	19.910	623.8	935.3	623.8	682.7	.0	639.0	.00	43.07	41.83	-2.52	837.6	685.5	-558.8	30.3	558.8	608.7
50	22.190	23.090	651.4	836.2	651.4	651.9	.0	523.6	.00	38.75	46.14	15,65	940.7	679.0	-678.4	-182.3	678.4	705.9
70	25.880	26.260	660.7	728.8	- 660.7	590.8		426.7	.00		50.12	32.41	1030.9	701.6	-791.2	-376.1	791.2	802.8
85	28.450	28.610	657.7	665.3	657.7	545.8	.0		.00	34.89	52.90		1090.5					
90	29.320	29.410	653.6	632.9	653.6	508.2	.0	376.9	.00	36.59	53.90		1109.4					
95		30.180		606.2			.0	376.6	.00	38.41	54.88		1126.9					
												- •						
	INCS	IHCM	DEV	TURN (	CAMBER	SOLIDTY	D-FAC	OMEGA+B	LOSS-P	LOSS-P	P02/	EFF-P	FF-AD	OMEGA-B	M-1	M-2	M'-1	M1-5
% SPAN	DEGREE		DEGREE	DEGREE (	DEGREE				TOTAL	ROFILE	P01	TOTAL T	CTAL S	HOCK				
5	-5.82	1.09	8.25	63,63	70.85	2.4327	.2020	.3325	. 0501	.0601	1.4284	.8153	.8058	* • 0000	.5242	.9839	.0423	.6861
10	-4.88	1.73	5.54	62.10	65.90	2.2855	, 202a	.2259	0446	.0446	1.4756	.8099	.8ó2u	0000	.5354	.9677	.6087	.6678
15	-4.27	2.03		57.90		2.1569	•3125		.0340		1.489u	.9u23	8967		.547ó	.9354	.6971	
30	~3.38	2.29	11.13	44.35		1.9043	.3901		.0105		1.4882	9069	9650		.5777	8444	.7772	
50	-2.47	2.49	11.12	30.48		1.6894	.4459		.0111		1.4568	9001	9579		6050		8770	
70	1.11	3.07		17,71		1.5542		.0903		.0248					-6134			6208
85	40			10.79		1.4421	.4457		.0321		1.3402		8170		6u9A		1.0156	
90	21		13.53			1.4148	4628	.1658	0409		1.3178	7.37	.7542		6054		1.0315	
95	14	3.22				1.3890	.478u			.0446					.6008		1.0461	
		•	•	- • . •	2.0,0	1.00,71		••••	,	••••	110024	• 1 200	• • • • • •		10000	• UL 7L	1.0401	.001
		NCOR-1	wCOR-1	WC/A-1	T02/	P027	EFF-AD	EFF-P						•	TA-1 S1	ra÷2 SI	ANT-1	SLANT-2
		RPH L	RM/SEC	LBM/SEC	701	P01	X	EFF-P										DEGREE
				SUFT		+												
		7006.0	178.69	40.29	1.1176	1.4145	88.621	89.20							5.0	6 C	86,05	95.02
																0,0		_
~~~	-C-																	
STA	TOR																	
STA		DIA-2	V-1	V-2	NM = 1	VW 0	W01	V0-2	D-1	<b>5</b> -2	D.1 - 1		W9 1	V•-0	W08-4	W04-0		11-2
	DIA-1	D1A-2	V-1	V-2	VM-1	VM-2	V0-1	V0-2	B-1	B-2	B*-1	B*-2	V'-1	V*-2	V0'-1	V0'-2	U-1 EX 4550	U-2
% SPAN	DIA-1	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC 1	T/SEC	FT/SEC (	EGREE C	FEREE D	EGREE	DEGREE	TYSEC F	T/SEC I	T/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN	DIA-1 IN 17.720	IN 18,580	989.4	FT/SEC   637.2	FT/SEC 627.8	636.7	764.7	FT/SEC ( 22.4	50.61	2.00	-19.55	DEGREE 40.60	666.3	838.5	223.0	FT/SEC -545.6	541.7	568.0
% SPAN 5 10	DIA-1 IN 17.720 18.350	18,580 19,110	989.4 1000.5	637.2 64.3	627.8 653.8	636.7 661.8	764.7 757.3	22.4 56.2	50.61 49.19	2.00 4.83	EGREE   -19.55 -16.71	40.60 38.59	666.3 682.7	838.5 846.7	223.0 196.3	-545.6 -528.1	541.7 561.0	568.0 584.2
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	18.580 19.110 19.740	989.4 989.4 1000.5 991.5	637.2 664.3 685.9	627.8 653.8 681.8	636.7 661.8 682.1	764.7 757.3 719. <b>5</b>	22.4 56.2 72.7	50.61 49.19 46.53	2.00 4.83 6.09	-19.55 -16.71 -11.34	9EGREE   40.60 38.59 37.89	666.3 682.7 696.0	838.5 846.7 864.2	223.0 196.3 136.5	-545.6 -528.1 -530.8	541.7 541.7 561.0 583.0	568.0 584.2 603.5
% SPAN 5 10 15 30	0IA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	989.4 989.4 1000.5 991.5 948.4	637.2 664.3 685.9 708.2	627.8 653.8 681.8 732.5	682.1 775.5	764.7 764.7 757.3 719.5 601.9	56.2 72.7 62.6	50.61 49.19 46.53 39.39	2.00 4.83 6.09 5.07	=19.55 =16.71 =11.34 3.42	40.60 40.60 38.59 37.89 40.27	666.3 682.7 696.0 735.2	838.5 846.7 864.2 924.8	223.0 196.3 136.5 -44.4	-545.6 -528.1 -530.8 -597.8	541.7 541.7 561.0 583.0 646.3	568.0 584.2 603.5 660.3
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	989.4 989.4 1000.5 991.5 948.4 889.3	637.2 664.3 685.9 708.2 700.8	627.8 653.8 681.8 732.5 732.2	636.7 661.8 682.1 775.5 697.2	764.7 764.7 757.3 719.5 601.9 504.4	56.2 72.4 56.2 72.7 62.6 70.3	50.61 49.19 46.53 39.39 34.54	2.00 4.83 6.09 5.07 5.75	PEGREE   -19.55 -16.71 -11.34 -3.42 17.32	40.60 38.59 37.89 40.27 43.82	666.3 682.7 696.0 735.2 768.4	838.5 846.7 864.2 924.8 967.0	223.0 196.3 136.5 -44.4 -228.3	-545.6 -528.1 -530.8 -597.8 -669.5	541.7 541.7 561.0 583.0 646.3 732.8	568.0 584.2 603.5 660.3 739.8
% SPAN 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790	18,580 19,110 19,740 21,600 24,200 26,880	989.4 1000.5 991.5 948.4 889.3 303.1	637.2 637.2 664.3 685.9 708.2 700.8	627.8 653.8 681.8 732.5 732.2 685.4	636.7 661.8 682.1 795.5 697.2 634.1	764.7 757.3 719.5 601.9 504.4	22.4 56.2 72.7 62.6 70.3 31.0	50.61 49.19 46.53 39.39 34.54 31.39	2.00 4.83 6.09 5.07 5.75 2.70	-19.55 -16.71 -11.34 -3.42 17.32 -30.27	40.60 38.59 37.89 40.27 43.82 50.38	666.3 682.7 696.0 735.2 768.4 794.8	838.5 846.7 864.2 924.8 967.0	7/SEC 223.0 196.3 136.5 -44.4 -228.3	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7	541.7 541.7 561.0 583.0 646.3 732.8 819.0	568.0 584.2 603.5 660.3 739.8 821.8
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	IN 18,580 19,110 19,740 21,600 24,200 26,880 28,900	989.4 1000.5 991.5 948.4 889.3 303.1 750.1	637.2 637.2 664.3 685.9 708.2 700.8 654.9 614.4	627.8 653.8 681.8 732.5 732.2 685.4 648.5	636.7 661.8 682.1 795.5 697.2 654.1 614.3	764.7 757.3 719.5 601.9 504.4 418.4 377.0	22.4 56.2 72.7 62.6 70.3 31.0	50.61 49.19 46.53 39.39 34.54 31.39	2.00 4.83 6.09 5.07 5.75 2.70	-19.55 -16.71 -11.34 -3.42 17.32 -30.27 37.93	40.60 38.59 37.89 40.27 43.82 50.38	666.3 682.7 696.0 735.2 768.4 794.8 822.4	838.5 846.7 864.2 924.8 967.0 1026.6	7/SEC 223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3	568.0 584.2 603.5 660.3 739.8 821.8 883.5
% SPAN 5 10 15 30 50 70 85 90	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18,580 19,110 19,740 21,600 24,200 26,880 28,900 29,600	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3	637.2 637.2 664.3 685.9 708.2 700.8 654.9 614.4 577.6	627.8 653.8 681.8 732.5 732.2 685.4 648.5 618.5	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4	764.7 764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3	50.61 49.19 46.53 39.39 34.54 31.39 30.17	2.00 4.83 6.09 5.07 5.75 2.70 .93	-19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3	7/SEC 223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0	568.0 584.2 603.5 660.3 739.8 821.8 883.5 904.9
% SPAN 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18,580 19,110 19,740 21,600 24,200 26,880 28,900 29,600	989.4 1000.5 991.5 948.4 889.3 303.1 750.1	637.2 637.2 664.3 685.9 708.2 700.8 654.9 614.4 577.6	627.8 653.8 681.8 732.5 732.2 685.4 648.5 618.5	636.7 661.8 682.1 795.5 697.2 654.1 614.3	764.7 757.3 719.5 601.9 504.4 418.4 377.0	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3	50.61 49.19 46.53 39.39 34.54 31.39 30.17	2.00 4.83 6.09 5.07 5.75 2.70	-19.55 -16.71 -11.34 -3.42 17.32 -30.27 37.93	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10	666.3 682.7 696.0 735.2 768.4 794.8 822.4	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3	7/SEC 223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0	568.0 584.2 603.5 660.3 739.8 821.8 883.5 904.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 30.270	FT/SEC 989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3	FT/SEC 637-2 664-3 685-9 708-2 700-8 654-9 614-4 577-6	FT/SEC 627.8 653.8 681.8 732.5 732.5 685.4 648.5 618.5 591.0	636.7 661.8 682.1 705.5 697.2 634.1 614.3 575.4	764.7 757.3 719.5 601.9 504.4 418.4 377.0 375.6	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44	2.00 4.83 6.09 5.07 5.75 2.70 1.23 1.51	EGREE -19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61 42.88	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1061.8	223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0	-545.6 -545.6 -528.1 -530.8 -597.8 -69.5 -790.7 -873.6 -911.0	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0	568.0 584.2 603.5 660.3 739.8 821.8 883.5 904.9
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 IHCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	FT/SEC 989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3	FT/SEC 637-2 664-3 685-9 708-2 700-8 654-9 614-4 577-6 545-6	FT/SEC 627.8 653.8 681.8 732.5 732.2 685.4 648.5 591.0 CAMBER	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY	764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51	-19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61 42.88	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3	7/SEC 223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0	568.0 584.2 603.5 660.3 739.8 821.8 883.5 904.9
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 IHCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE	FT/SEC 637.2 664.3 685.9 708.2 708.8 654.9 614.4 577.6 545.6 TURN DEGREE	627.8 627.8 653.8 681.8 732.2 685.4 648.5 618.5 591.0 CAMBER DEGREE	636.7 661.8 682.1 795.5 697.2 654.1 614.3 577.4 545.4 SOLIDTY	764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P	-19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61 42.88 P02/(P01 St	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3	223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0 -548.9	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0 924.5	568.0 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 M¹-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17. 720 18. 350 19. 070 21. 140 23. 970 26. 790 28. 860 29. 570 30. 240  IHCS DEGREE . 96	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 4.93	989.4 1000.5 991.5 994.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49	FT/SEC 637-2 664-3 685-9 708-8 700-8 654-4 577-6 545-6 TURN DEGREE 48-62	FT/SEC 627.8 633.8 681.8 732.2 685.4 648.5 591.0 CAMBER DEGREE 62.55	61.8 661.8 682.1 775.5 697.2 634.1 577.4 545.4 SOLIDTY	764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 OMEGA-B	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P	-19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61 42.88 P02/(P01.SI .9433	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 DMEGA-BI	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1061.8 EFF-3 STATIC .8056	223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0 -548.9 M-1	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2	541.7 541.7 561.0 583.0 646.3 732.0 882.3 904.0 924.5 M'-1	568.0 584.2 603.5 660.3 739.8 821.8 883.5 904.9 925.4 N¹-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE  .966	18.580 19.110 19.740 21.600 24.200 28.900 29.600 30.270 INCM DEGREE 4.93 5.46	989.4 1000.5 991.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79	FT/SEC 637-2 664-3 685-9 700-8 654-9 614-4 577-6 TURN DEGREE 48-62 44-36	FT/SEC 627.8 653.8 653.8 732.2 685.4 648.5 591.0 CAMBER DEGREE 62.55	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY	764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0398	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0398	-19.55 -16.71 -11.34 17.32 30.27 37.93 40.61 42.88 P02/(P01.51 .9433 .9330	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 DMEGA-BI	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7746	223.0 196.3 136.5 -44.4 -228.3 -400.6 -505.3 -530.0 -548.9 M-1	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.5 W'-1	568.0 568.0 603.5 660.3 739.8 883.5 904.9 925.4 M1-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1  17. 720 18. 350 19. 070 21. 140 23. 970 26. 790 28. 860 29. 570 30. 240  IHCS DEGREE . 96 1. 20 . 24	IN 18,580 19,110 19,740 21,600 26,880 28,900 30,270 INCM DEGREE 4,93 5,46 4,58	989.4 1000.5 991.5 948.4 889.3 1750.1 722.3 700.3 DEV DEGREE 18.49 20.54	FT/SEC 637.2 664.3 685.9 708.2 700.8 654.9 614.4 577.6 545.6 TURN DEGREE 48.62 44.36 40.45	FT/SEC 627.8 653.8 681.8 732.5 732.2 685.4 648.5 591.0 CAMBER DEGREE 62.50 57.11	636.7 661.8 682.1 725.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1270 2.0285 1.9459	764.7 764.7 757.3 719.5 601.9 504.4 317.0 374.0 375.6 D-FAC	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0331	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .0398	-19.55 -16.71 -11.34 17.32 17.32 30.27 37.93 40.61 42.88 P02/(P01.53 .9338 .9402	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 DMEGA-BI 10CK .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD 10TAL S .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7746 .7878	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8988 .9055 .8951	-545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972	541.7 541.7 561.0 583.0 646.3 732.8 819.0 924.5 W'-1 .6074 .6216	568.0 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 N1-2 .7265 .7348 .7525
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE .96 1.20 .24 -3.29	IN 18,580 19,110 19,740 21,600 24,800 28,900 29,600 30,270 INCM UEGREE 4,93 5,46 4,58 1,53	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79 21.54	FT/SEC 637-2 664-3 685-9 708-2 700-8 654-9 614-4 577-6 545-6 TURN DEGREE 48-62 44-36 34-32	FT/SEC 627.8 653.8 681.8 732.5 732.2 648.5 618.5 591.0 CAMBER DEGREE 62.55 39.60 57.11 51.75	636.7 661.8 682.1 775.5 697.2 634.1 614.3 577.4 545.4 SOLIOTY 2.1270 2.0285 1.9459 1.7521	764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1425 .1455	50.61 49.19 46.53 39.39 34.54 31.19 30.17 31.18 32.44 LOSS~P TOTAL .0331 .0374 .0279	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .0398 .0374 .0279	-19.55 -16.71 -11.34 3.42 17.32 30.27 37.93 40.61 42.88 P02/(P01 Si .9433 .9350 .9453	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 40CK .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD FOTAL S .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7746 .7878 .8291	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .898A .9055 .8951 .8557	-545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972 .6208	541.7 541.7 561.0 583.0 646.3 732.8 882.3 904.0 924.5 M'-1 .6074 .6233 .6064	568.0 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 M¹-2 .7265 .7525 .8106
% SPAN 5 10 15 30 50 70 85 90 95 10 15 30 55	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 IHCS DEGREE -96 1.20 .24 -3.29 -4.97	IN 18,580 19,110 19,740 21,600 24,880 28,900 29,600 30,270 INCM DEGREE 4.93 5.46 4.58 1.554	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 722.3 700.3 DEGRE 18.49 20.79 21.54 19.06	F1/SEC 637.2 685.9 708.2 700.8 614.4 577.6 545.6 TURN DEGREE 48.62 44.36 40.45 34.32 28.79	FT/SEC 627.8 657.8 651.8 732.5 732.2 648.5 618.5 618.5 591.0 CAMBER DEGREE 62.55 59.60 57.11 51.75 44.80	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1970 2.0285 1.7521 1.5482	764.7 764.7 757.3 719.5 601.9 504.4 377.0 374.0 375.6 D-FAC	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465 .0982	50.61 49.19 46.53 39.39 34.54 31.18 32.44 LOSS-P TOTAL .0331 .0398 .0279	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .0398 .0374 .0279	-19.55 -16.71 -11.34 -3.42 17.32 -30.27 -37.93 40.61 42.88 P02/ Si .9433 .9432 .9625 .9625	40.60 38.59 37.89 40.27 43.82 50.38 57.10 59.09 MEGA-BI 40CK .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 822.4 814.7 814.7 806.6 EFF-AD 101AL .0000 .0000 .0000	838.5 844.2 924.8 924.8 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7746 .7878 .8291 .8465	223.0 196.5 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .898A .9055 .8951 .8557 .7984	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972 .6208 .6155	541.7 541.7 561.0 583.0 646.3 732.8 882.3 904.0 924.5 M'-1 .6074 .6216 .6333 .6064	568.0 568.0 603.5 660.3 739.8 883.5 904.9 925.4 M1-2 .7265 .7348 .7520 .8106 .8494
2. SPAN 5 10 15 30 50 70 85 90 95 5 10 15 30 50 70	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE966 1.2024 - 3.29 - 4.97 - =6.16	IN. 18,580 19,110 19,740 21,600 24,200 26,880 29,600 30,270 INCM UEGREE 4,93 5,46 4,58 1,53 -,45	989.4 1000.5 941.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79 21.54 19.06	FT/SEG 637.2 685.9 708.2 700.8 614.4 577.6 545.6 TURN DEGREE 48.62 40.45 34.32 28.79 28.68	FT/SEC 627.8 653.8 681.8 732.2 685.2 648.5 618.5 591.0 CAMBER DEGREE 52.50 57.11 51.75 44.80	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1070 2.1070 2.1070 1.5482 1.5482 1.3866	764.7 764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .4722 .4131 .3085	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465 .0982 .0736	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0374 .0279 .0237	2.00 4.83 6.09 5.07 5.75 .93 1.23 1.51 LOSS-P PROFILE .0359 .0374 .0279 .0277	PO2/C P01 Si -9433 -9402 -9433 -9402 -9625 -9745	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 DMEGA-BI 40CK .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 FFF-AD 10000 0000 0000 0000	838.5 846.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7746 .7878 .8291 .8465 .8786	223.0 196.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8988 .9055 .8951 .8557 .7166	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972 .6208 .6155 .5749	541.7 541.7 561.0 583.0 646.3 732.8 882.3 904.0 924.5 M'-1 .6074 .6216 .6333 .6064 .7097	568.0 568.0 663.5 660.3 739.8 883.5 904.9 925.4 M1-2 .7265 .7348 .7525 .8106 .8494 .9011
% SPAN 5 10 15 30 50 70 85 95 % SPAN 5 10 15 30 50 70 86	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE -96 1.20 .24 -3.29 -4.97 -6.16	IN 18,580 19,110 19,740 21,600 24,200 26,800 30,270 INCM UEGREE 4.93 5.46 4.58 1.53 .5405	989.4 1000.5 941.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79 21.54 19.06 16.55 15.93	FT/SEC 637.2 664.3 685.9 708.2 700.8 654.9 577.6 545.6 TURN DEGREE 48.62 44.36 40.45 34.32 28.79 28.79 29.25	FT/SEC 627.8 653.8 681.8 732.5 732.2 685.4 618.5 591.0 CAMBER DEGREE 62.50 57.11 51.75 44.80 44.80	636.7 661.8 682.1 725.5 697.2 634.1 614.3 577.4 545.4 SOLIOTY 2.1070 2.0285 1.7521 1.5482 1.3866 1.2856	764.7 764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3585 .3585	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1435 .0982 .0736 .0492	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0331 .0279 .0277 .0240	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .039 .0374 .0279 .0237	-19.55 -16.71 -11.34 -17.32 -17.32 -30.27 -37.93 -40.61 -42.88 -94.33 -94.33 -94.93 -94.92 -96.25 -974.7 -98.41	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 10CK .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD FOTAL S .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7878 .8291 .8465 .8392	223.0 196.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8989 .9055 .8951 .8557 .7984 .7166	-545.6 -528.8 -520.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972 .6208 .6155 .5380	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0 924.5 M'-1 .6074 .6216 .6333 .6664 .6910 .7097 .7304	568.0 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 N'-2 .7265 .7348 .7525 .8106 .8494 .9011 .9354
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 86 96 97 99	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE .96 1.20 .24 -3.29 -4.976.16 -6.58 -5.67	IN 18,580 19,110 19,740 21,600 24,200 28,900 29,600 30,270 INCM USGREE 4,93 5,46 4,58 1,53 ,54 -,05 -,08 (,93	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 750.1 722.3 700.3 DLV DEGREE 18.49 20.79 21.55 15.55 15.55	FT/SEC 637-2 664-3 685-9 708-2 700-8 654-9 654-9 614-4 577-6 TURN DEGREE 48-62 44-36 34-32 28-79 28-62 29-95	FT/SEC 627.8 653.8 681.8 732.2 648.5 591.0 CAMBER 62.55 59.60 57.11 51.75 44.80 45.31 45.96	636.7 661.8 682.1 775.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1070 2.0285 1.9459 1.7521 1.5482 1.28.6 1.2554	764.7 767.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3685 .3769 .4001	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1465 .0982 .0736 .0492 .0619 .0851	50.61 49.19 46.53 39.39 34.54 31.19 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0378 .0279 .0237 .0240 .0343	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .0598 .0374 .0279 .0237	POLITION NO. 10 POLITION NO. 1	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 MEGA-BI HOCK .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD FOTAL S .0000 .0000 .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7786 .7878 .8291 .8465 .8392 .7932	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 N-1 .898A .9053 .8951 .8557 .7984 .6660 .6395	-545.6 -528.8 -520.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5762 .5972 .6208 .6155 .5780 .5380	541.7 541.7 561.0 583.0 646.3 732.8 882.3 904.0 924.5 M'-1 .6074 .6216 .6333 .6064 .6910 .7097 .7304	FT/SEC 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 M¹-2 .7265 .7525 .8106 .8494 .9011 .9354 .9272
% SPAN 5 10 15 30 50 70 85 95 % SPAN 5 10 15 30 50 70 86	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE -96 1.20 .24 -3.29 -4.97 -6.16	IN 18,580 19,110 19,740 21,600 24,800 28,900 30,270 MEGREE 4.93 5.46 4.58 1.53 .5408 (.939393	989.4 1000.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79 21.59 16.55 15.93 16.94	FT/SEC 637-2 664-3 685-9 708-2 700-8 654-4 577-6 545-6 TURN DEGREE 48-36 40-45 34-32 28-62 44-36 29-95	FT/SEC 627.8 653.8 681.8 732.2 648.5 591.0 CAMBER 62.55 59.60 57.11 51.75 44.80 45.31 45.96	636.7 661.8 682.1 725.5 697.2 634.1 614.3 577.4 545.4 SOLIOTY 2.1070 2.0285 1.7521 1.5482 1.3866 1.2856	764.7 764.7 757.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3585 .3585	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1465 .0982 .0736 .0492 .0619 .0851	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0331 .0279 .0277 .0240	2.00 4.83 6.09 5.07 5.75 2.70 .93 1.23 1.51 LOSS-P PROFILE .0331 .0598 .0374 .0279 .0237	POLITION NO. 10 POLITION NO. 1	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 10CK .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD FOTAL S .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1068.2 1063.3 1061.8 EFF-3 STATIC .8056 .7786 .7878 .8291 .8465 .8392 .7932	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 N-1 .898A .9053 .8951 .8557 .7984 .6660 .6395	-545.6 -528.8 -520.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5762 .5972 .6208 .6155 .5780 .5380	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0 924.5 M'-1 .6074 .6216 .6333 .6664 .6910 .7097 .7304	FT/SEC 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 M¹-2 .7265 .7525 .8106 .8494 .9011 .9354 .9272
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 86 96 99	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  IHCS DEGREE .96 1.20 .24 -3.29 -4.976.16 -6.58 -5.67	IN 18,580 19,110 19,740 21,600 24,200 26,800 30,270 INCM UEGREE 4,93 5,46 4,58 1,53 -08 2,01	989.4 1000.5 941.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREC 18.49 20.79 21.54 19.06 16.55 15.93 16.94	F1/SEG 637.2 685.9 708.2 700.8 6114.4 577.6 545.6 TURN DEGREE 2 48.62 40.45 34.32 28.68 29.25 29.95	FT/SEC 627.8 653.8 681.8 732.2 648.5 618.5 591.0 CAMBER BEGREE 62.50 57.11 51.75 44.28 45.31 45.96	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1070 2.1070 2.1070 2.1070 1.7521 1.5482 1.2856 1.2854 1.2271	764.7 767.3 769.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3585 .3709 .4001 .4309	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465 .0982 .0619 .0861 .1045	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0374 .0279 .0237 .0240 .0343 .0426	2.00 4.83 6.09 5.07 5.75 .93 1.23 1.51 LOSS-P PROFILE .0331 .0374 .0279 .0277 .0240 .0343	EGREE -19.55 -16.71 -11.34 -2.17.32 -37.93 -40.61 -42.88 -902/(-19.43 -94.33 -94.02 -96.25 -974.7 -9841 -9793 -9763	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 40CK .0000 .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD 10000 .0000 .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1063.3 1061.8 EFF-3 STATIC .8056 .7878 .8291 .8465 .8786 .8392 .7669	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8988 .9055 .8951 .8557 .7986 .6660 .6395	-545.6 -545.6 -528.1 -530.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5765 .5972 .6208 .6155 .5380 .5380 .5037 .4738	541.7 541.7 561.0 583.0 646.3 732.8 819.0 882.3 904.0 924.5 M*-1 .6074 .6216 .6333 .6064 .6910 .7097 .7304 .7208	568.0 568.0 603.5 660.3 739.8 883.5 904.9 925.4 M'-2 .7265 .7348 .7525 .8106 .8494 .9011 .9354 .9272
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 86 96 99	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  INCS DEGREE -96 1.20 -3.29 -4.97 -6.16 -6.58 -5.67 -4.75	IN 18,580 19,110 19,740 21,600 24,200 26,800 30,270 INCM UEGREE 4.93 5.46 4.58 1.53 .5405 .93 2.01 NCOR-1	FT/SEC 989.4 1000.5 948.4 889.3 303.1 750.1 722.3 700.3 DEV DEGREE 18.49 20.79 21.54 19.06 16.55 15.93 16.94 17.84	FT/SEC 637.2 664.3 685.9 708.8 654.9 654.9 577.6 545.6 TURN DEGREE 48.62 44.36 34.32 28.79 29.95 30.92 WC/A-1	FT/SEC 627.8 653.8 681.8 732.2 648.5 618.5 591.0 CAMBER BEGREE 62.50 57.11 51.75 44.28 45.31 45.96	636.7 661.8 682.1 795.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1070 2.1070 2.1070 2.1070 1.7521 1.5482 1.2856 1.2854 1.2271	764.7 767.3 769.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3585 .3709 .4001 .4309	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465 .0982 .0619 .0861 .1045	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0374 .0279 .0237 .0240 .0343 .0426	2.00 4.83 6.09 5.07 5.75 .93 1.23 1.51 LOSS-P PROFILE .0331 .0374 .0279 .0277 .0240 .0343	EGREE -19.55 -16.71 -11.34 -2.17.32 -37.93 -40.61 -42.88 -902/(-19.43 -94.33 -94.02 -96.25 -974.7 -9841 -9793 -9763	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 40CK .0000 .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD 10000 .0000 .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1063.3 1061.8 EFF-3 STATIC .8056 .7878 .8291 .8465 .8786 .8392 .7669	223.0 196.3 136.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8988 .9055 .8951 .8557 .7986 .6660 .6395	-545.6 -528.6 -528.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5762 .6208 .6155 .5972 .6208 .6155 .5749 .5337 .4738	FT/SEC 541.7 561.0 583.0 646.3 732.8 819.0 924.5 W'-1 .6074 .6216 .6333 .6064 .6910 .7097 .7304 .7108	FT/SEC 568.0 584.2 603.5 660.3 739.8 883.5 904.9 925.4 N'-2 .7265 .7368 .7525 .8106 .8494 .9011 .9354 .9272 .9221 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95  % SPAN 5 10 15 30 50 70 86 96 99	DIA-1  17. 720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240  INCS DEGREE -96 1.20 -3.29 -4.97 -6.16 -6.58 -5.67 -4.75	IN 18,580 19,110 19,740 21,600 24,200 26,800 30,270 INCM UEGREE 4.93 5.46 4.58 1.53 .5405 .93 2.01 NCOR-1	989.4 1000.5 991.5 948.4 889.3 303.1 750.1 750.1 750.3 700.3 700.3 0 18.49 20.79 21.55 15.93 16.94 17.84	F1/SEG 637.2 685.9 708.2 700.8 614.4 577.6 545.6 TURN DEGREE 2 48.62 40.45 34.32 28.68 29.25 29.95	FT/SEC 627.8 653.8 681.8 732.2 648.5 618.5 591.0 CAMBER BEGREE 62.50 57.11 51.75 44.28 45.31 45.96	636.7 661.8 682.1 775.5 697.2 634.1 614.3 577.4 545.4 SOLIDTY 2.1070 2.0285 1.9459 1.7521 1.5482 1.28.6 1.2554	764.7 767.3 769.3 719.5 601.9 504.4 418.4 377.0 374.0 375.6 D-FAC .5295 .5046 .4722 .4131 .3585 .3709 .4001 .4309	22.4 56.2 72.7 62.6 70.3 31.0 9.9 12.3 14.4 0MEGA-B .1394 .1622 .1465 .0982 .0619 .0861 .1045	50.61 49.19 46.53 39.39 34.54 31.39 30.17 31.18 32.44 LOSS-P TOTAL .0331 .0374 .0279 .0237 .0240 .0343 .0426	2.00 4.83 6.09 5.07 5.75 .93 1.23 1.51 LOSS-P PROFILE .0331 .0374 .0279 .0277 .0240 .0343	EGREE -19.55 -16.71 -11.34 -2.17.32 -37.93 -40.61 -42.88 -902/(-19.43 -94.33 -94.02 -96.25 -974.7 -9841 -9793 -9763	40.60 38.59 37.89 40.27 43.82 50.38 54.89 57.10 59.09 0MEGA-BI 40CK .0000 .0000 .0000 .0000 .0000	666.3 682.7 696.0 735.2 768.4 794.8 822.4 814.7 806.6 EFF-AD 10000 .0000 .0000 .0000 .0000 .0000 .0000	838.5 846.7 864.2 924.8 967.0 1026.6 1063.3 1061.8 EFF-3 STATIC .8056 .7878 .8291 .8465 .8786 .8392 .7669	223.0 196.5 -44.4 -228.3 -505.3 -530.0 -548.9 M-1 .8988 .9055 .8951 .8557 .7986 .6660 .6395	-545.6 -528.6 -528.8 -597.8 -669.5 -790.7 -873.6 -892.6 -911.0 M-2 .5521 .5762 .6208 .6155 .5972 .6208 .6155 .5749 .5337 .4738	FT/SEC 541.7 561.0 583.0 646.3 732.8 819.0 924.5 W'-1 .6074 .6216 .6333 .6064 .6910 .7097 .7304 .7108	568.0 568.0 603.5 660.3 739.8 883.5 904.9 925.4 M'-2 .7265 .7348 .7525 .8106 .8494 .9011 .9354 .9272

95% of Design Speed

13,120 16,030 525,7 1005,7 525,7 578,7 14,100 16,793 544,7 988,6 544,7 588,1 15,170 17,583 556,9 956,6 556,9 597,4 18,280 19,913 585,2 875,3 585,2 605,3 .0 822.4 794.5 .00 53.48 38.38 -25.50 694.8 652.2 -431.4 280.9 431.4 513.7 .00 51.33 39.83 -19.26 725.6 633.8 -464.1 2-9.1 464.1 537.8 .00 45.20 43.67 -2.38 869.8 607.6 -559.3 22.6 559.3 609.1 746.9 631.7 , i' 22:190 23:090 611:8 784:4 6:1:8 574:5 25:880 26:26 624:2 715:7 624:2 551:0 .U0 42.88 47.95 16.66 914.0 601.6 -678.9 -172.5 678.9 7U6.4 .U0 39.64 51.73 32.12 1008.4 651.9 -791.8 -346.8 791.8 803.4 .0 533.9 .0 456.6 .U0 39.44 54.44 41.02 1069.9 686.0 -870.4 -450.0 870.4 875.3 .U0 41.49 55.25 44.61 1091.7 676.3 -897.0 -474.5 897.0 899.8 28.450 28.610 622.1 669.9 622.1 517.4 29.320 29.41) 622.2 642.4 622.2 481.3 .0 425.3 .0 425.2 30.150 30.180 618.9 618.3 618.9 449.5 .00 43.33 56.14 48.00 1110.8 671.8 -922.4 -499.2 922.4 923.3 +0 424-1 INCS INCM DEV TURN CAMBER SOLIDTY D.-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P FFF-AD OMEGA-B M-1 41-2 \* SPAN DEGREE DEGREE DEGREE DEGREE DEGREE DEGREE 2.4327 .2723 .2437 .0434 .0434 1.4519 .8749 .8682 .01 ·0000 ·4824 .9157 .6079 .6µ75 3.53 5.51 63.88 65.90 2.2853 .3333 .1649 .0326 .0326 1.4792 .9087 .9035 3.79 7.61 59.05 62.90 2.1569 .3820 .1100 .0241 .0241 1.4859 .9332 .9294 4.14 11.62 45.75 53.23 1.9049 .4627 .0197 .0052 .0052 1.4926 .9837 .9827 .0000 .5013 .897g .6411 .5917 . 8644 .1100 .0197 .0000 .5127 .6691 ·0000 ·5393 ·7535 .7466 35441 -.68 4-31 12-12 31-29 39-10 1-8905 -5177 .0268 .0076 -0076 1-4755 -9737 .9722 .0000 .5651 .69418 .8448 .5329 .46 4-56 12-06 19-51 27-11 1.5347 .5020 .6314 .0087 .0871 1-4552 .9634 .9614 .0000 .5773 .6299 .9328 .5738 11-13 4-78 11-06 13-42 19-68 1.4422 .4973 .6652 .0170 .0170 1-4386 .92.2 .9160 .0000 .5752 .5662 .9907 .5003 1-12 4-54 12-34 10-64 18-34 1.4148 .5184 .1141 .0287 .0257 .0259 1-4172 .8559 .8528 .0112 .5750 .5598 1-4105 .5893 1:12 4.49 13.84 8.14 17.48 1.3891 .5327 .1479 .0356 .0326 1.4029 .8168 .8078 .0126 .5720 .5365 1.u272 .5832 NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 RPM LBM/SEC LBM/SEC TO1 PO1 % DEGREE DEGREE 7011.0 171.54 38.68 1.1222 1.4600 93.455 93.89 86.05 95.02 5.0 6.0 STATOR 70.9 49,42 59.2 43.00 7.09 -10.21 43.11 600.6 779.9 106.1 -533.1 553.4 603.9 5.48 4.62 44.25 640.7 862.1 -51.9 -61.6 646.8 660.8 19,070 19,740 908.1 573.7 590.5 569.3 689.6 21.149 21.600 872.0 620.2 637.4 617.4 594.8 23,970 24.200 823.8 622.9 643.5 619.2 514.2 6.25 18.75 47,34 680.9 914.3 -219,2 -672.5 733.3 740.4 67.8 38.61 39.3 35.04 21.7 34,34 51.93 739.2 994.6 -372.1 -783.1 55.50 770.6 1046.7 -461.8 -862.5 26,790 26.880 779.4 614.2 638.1 612.9 447.5 28,860 28,900 746.8 593.3 616.7 592.9 421.1 3.66 30.21 2.11 36.83 819.6 822.4 882.9 884.2 2.50 39.31 57.43 761.6 1045.3 -482.3 -880.9 904.7 905.6 1.46 41.65 59.37 755.4 1060.2 -502.0 -912.3 925.2 926.1 24.7 35,64 29,570 29,600 725.0 563.1 589,2 562.5 422.3 39.249 30,270 705.4 540.2 564.4 540.1 423.1 13.8 36.86 DEV TURN CAMBER SOLIDTY D-FAC OMEGA-8 LOSS-P LOSS-P POZZ OMEGA-8-FF-AD EFF-P M'-1 M-2 LINLM GREE DEGREE DEGREE DEGREE DEGREE

4.11 8.39 16.06 54.65 62.55 2.1076 .5946 .1526 .0362 .0362 .9452 .0000 .0000 .8034

4.18 8.43 20.27 47.85 59.56 2.0301 .5675 .1809 .0444 .0444 .9345 .0000 .0000 .7666 ASPAN DEGREE DEGREE DEGREE DEGREE .8234 .4693 .5173 .68n3 .8251 .4858 **.**5308 .6728 .1770 .0451 .0451 .9374 .0987 .0280 .0280 .9673 .4954 3,32 7.65 22.53 42.32 57.66 1.9485 5.28 19.48 37.53 51.72 1.7550 .7612 .8127 .5403 .6735 .5392 .0000 .0000 .7494 .4612 .0000 .8366 .7801 5391 .5736 .0000 4.64 16.99 32.36 44.72 1.5495 4174 .0638 .0205 .0205 •98nB .8755 7339 •5422 .0056 .7959 .0000 •0000 . 8664 3,61 16,46 31.37 44.22 1.3872 ,4003 4.04 17.14 32.23 45.27 1.2868 ,4132 5,35 18.22 33.14 45.96 1.2555 ,4417 4003 0592 0213 .6548 .6916 .9838 .0000 .0000 •8680 •5350 .0734 .0285 .0285 .9814 .0000 .0000 .6805 .9094 .8319 .6600 .5155 -2,46 0944 0376 0376 9774 0000 0000 7961 6382 4872 0699 9044 0978 0398 0398 9778 0000 0000 7924 6179 4659 6611 9142 -1.25 4705 6.45 17.79 35.39 46.75 1.2271 NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P STA-1 STA-2 SLANT-1 SLANT-2 DEGRLE DEGREE RPM LBM/SEC LBM/SEC TOL × P01 SOFT

7011-0 171-54 38-68 1.1222 1.4199 86.218 86.97

-- 11.6 - 12.0 - 90.00 90.00

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR

95% of Design Speed

	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	V0-2	B-1	8-2	B'-1	8'-2	VI-1 FT/SEC F	V!=2	V0'-1	V0'-2	U-1	U-2 ET/SEA
% SPAN 5		16.630	487.4	971.9	487.4	532.3		B13.2	.00	56.79	39.46	-31.24	631.4	622.6	-401.3	322.9	401.3	490.3
10			508.5					781.2	•00			-26.12			-431.3		431.3	513.6
15	15.170				520.7		• 0		•00	52.73		-19.48		595.0	-464.0	198.6	464.0	537.7
30	18.280	19.910	547.5	844.7	547.5	550.1	• 0		•00	49.33		-3.27			-559.1	31.9	559.1	
50	22.190			767 • 4		539.5	• 3	545.6	•00						-678.7		678.7	
70	25.680				585.6	524.6	,0		.00		53.49				-791.6 -470.0		791.6	
85			582.3		582.3		•0	_ = =	•00		56.21 56.93		1047.1		-870.2 -896.8		870.2 896.8	
90			583.8 581.3		583.8 581.3		•0 •0		.00 .00				1090.1		-922.2		922.2	
95	20.120	20.120	301.3	02367	30143	72701	• •	70000	•••	4,430	2.1		10,011	2000	, e.c. e.c.	.0012		
	INCS	INCM	DEV	TURN (	AMBER S	SOLIDTY	D-FAC	OMESA-B	LOSS-P	LOSS-P			EFF-AD 1		M-1	M-2	M*-1	M*-2
% SPAN	DEGREE C								TOTAL	PROFILE	POL	OTAL	TOTAL SE			00-0		الرابوس ساد
5	-1.53	5.38		70.70	70.85	2.4325	.3051	2536		.0446	1.4489	.8793		•0000				•5642
10	-1.21	5.45		66.42		2.2851						.9064	•9013	.0000	.4666 .4779	.8607 .8329	.6135 .6419	
15	61	5.68				2.1567						.9550	•9510		-5026	.7526	7187	
30 50	1.15	6.04	10•43 11•95			1.6908						.9702	9685		.5274	6775	8169	
70	2.21		11.46			1.5348		.0331				9648	9628			.6242	9066	
85	2.86		10.68			1.4422						.9277	.9237			.5833	9655	
90	2.66	6.32	11.83	12.82	18.33	1.4148			•0300			.8681	•8610			.5613		
95	2.76	6.13	13.36	10.26	17.48	1.3891	•5759	•1584	-0385	.0347	1.4452	.8231	. 8138	.0157	•535 <u>1</u>	<u>• 5409</u>	1.0042	•5429
					****			55a a							STA-1 ST	ra-a cı	ANT-9	CL ANT-3
			#COR-1			P02/ P01	EFF-AD	£FF=P %							214-1 2		EGREE	
		KFM L	BM/SEC	SUFT	101	PUL	<del>X</del>										LUNEL	SCOKEE
		7010-0	163.79		1.1265	1.4759	93.031	93.19							-5.0	- 4 0	86.05	95.02
am.	rao D					_										0.0		
STA	IOI																	
SIA		014-0	۱۰ <b>د</b>	V-2	VII 4	Vw_2	W2-1	V0-0	D •	0-3	D1-1	D+-2	V1	V+-2	V0.0-1	V0 ==2	99	11=2
	DIA-1	DIA-2	V=1 FT/SF( F	V-2 FT/SEC F	<b>VM-1</b> FT/SFC F	<b>VM-</b> 2 FT/SEC #	V0-1	<b>V</b> 0=2	B-1 DEGREE	8-2 DEGREF I	B!-1	B1-2 DEGREE	V!-1 FT/SFC F	V1-2	V0*-1 FT/SEC 8	V0!-2	U~1 T/SEC	U=2 FT/SEC
% SPAN	DIA-1 IN 1	W	FT/SEC F	T/SEC F	T/SEC F	FT/SEC F	T/SEC	FT/SEC	DEGREE	DEGREE I	DEGREE	DEGREE	FT/SEC F	T/SEC	FT/SEC P	T/SEC F	T/SEC	FT/SEC
% SPAN	DIA-1 IN 1 17.720	16.580	878.9	467.0	480.8	485.8	V0-1 T/SEC 735.7 716.3	-25.0	SGREE 56.83	EGREE 1	DEGREE	DEGREE 50.67	FT/SEC F 518.5	766.9	FT/SEC P	T/SEC F	T/SEC	568.3
% SPAN 5	DIA-1 IN 1 17.720 18.350 19.070	16.580 19.110 19.740	878.9 678.7 869.3	1/SEC F 487.0 496.2 507.5	T/SEC F 480.8 508.9 542.2	FT/SEC F 485.8 495.1 503.3	735.7 716.3 679.4	-25.0 27.4 64.5	56.83 54.60 51.40	-2.96 3.16 7.29	DEGREE -21.93 -16.94 -10.06	DEGREE 50.67 48.37 46.98	FT/SEC F 518.5 532.1 551.1	766.9 745.4 737.7	193.7 155.0 96.1	T/SEC F -593.3 -557.1 -539.3	542.0 561.3 583.3	568.3 584.5 603.8
% SPAN 5 10 15 30	DIA-1 IN 1 17.720 18.350 19.070 21.140	16.580 19.110 19.740 21.600	878.9 678.7 869.3	FT/SEC F 467.0 496.2 507.5 559.7	7/SEC F 480.8 508.9 542.2 572.6	FT/SEC F 485.8 495.1 503.3 555.6	735.7 736.3 679.4 603.5	-25.0 27.4 64.5 67.7	56.83 54.60 51.40 46.49	-2.96 3.16 7.29 6.95	DEGREE -21.93 -16.94 -10.06 4.25	DEGREE 50.67 48.37 46.98 46.86	FT/SEC F 518.5 532.1 551.1 575.4	766.9 765.4 745.4 737.7 812.6	FT/SEC 7 193.7 155.0 96.1 -43.2	T/SEC F -593.3 -557.1 -539.3 -593.0	542.0 561.3 583.3 646.6	568.3 584.5 663.8 660.7
% SPAN 5 10 15 30 50	DIA-1 1N 1 17.720 18.350 19.070 21.140 23.970	16.580 19.110 19.740 21.600 24.200	878.9 678.7 869.3 832.1 798.1	487.0 487.0 496.2 507.5 559.7 586.6	480.8 508.9 542.2 572.6 600.6	#85.8 #85.1 503.3 555.6 583.6	735.7 716.3 679.4 603.5 525.4	-25.0 27.4 64.5 67.7 61.3	56.83 54.60 51.40 46.49 41.17	2.96 3.16 7.29 6.95 6.00	-21.93 -16.94 -10.06 4.25 19.01	DEGREE 50.67 48.37 46.98 46.86 49.30	FT/SEC F 518.5 532.1 551.1 575.4 636.4	766.9 745.4 737.7 812.6 895.3	FT/SEC 7 193.7 155.0 96.1 -43.2 -207.8	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9	542.0 542.0 561.3 583.3 646.6 733.2	568.3 584.5 663.8 660.7 740.2
% SPAN 5 10 15 30 50 70	DIA-1 1N 1 17.720 18.350 19.070 21.140 23.970 26.790	16.580 19.110 19.740 21.600 24.200 26.880	878.9 678.7 678.7 869.3 632.1 798.1 769.4	FT/SEC F 487.0 496.2 507.5 559.7 586.6 594.2	7/SEC F 480.8 508.9 542.2 572.6 600.6 608.2	FT/SEC F 485.8 495.1 503.3 <b>5</b> 55.6 <b>5</b> 83.6 592.8	735.7 735.7 716.3 679.4 603.5 525.4 471.3	-25.0 27.4 64.5 67.7 61.3 39.9	56.83 54.60 51.40 46.49 41.17 37.76	-2.96 3.16 7.29 6.95 6.00 3.64	-21.93 -16.94 -10.06 4.25 19.01 29.75	DEĞREE 50.67 48.37 46.98 46.86 49.30 52.83	FT/SEC F 518.5 532.1 551.1 575.4 636.4 701.3	7/SEC 766.9 745.4 737.7 812.6 895.3 981.7	193.7 155.0 96.1 -43.2 -207.8 -348.2	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4	542.0 542.0 561.3 583.3 646.6 733.2 819.5	568.3 584.5 663.8 660.7 740.2 822.2
% SPAN 5 10 15 30 50 70 85	DIA-1 1N 1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	878.9 678.7 869.3 632.1 798.1 769.4	FT/SEC F 487.0 496.2 507.5 559.7 586.6 594.2 577.3	7/SEC F 480.8 508.9 542.2 572.6 600.6 608.2 591.3	7/SEC 6 485.8 495.1 503.3 555.6 583.6 592.8 576.8	735.7 716.3 679.4 603.5 525.4 471.3	-25.0 27.4 64.5 67.7 61.3 39.9 24.5	56.83 54.60 51.40 46.49 41.17 37.76	-2.96 3.16 7.29 6.95 6.00 3.64	-21.93 -16.94 -10.06 4.25 19.01 29.75	DEĞREE 50.67 48.37 46.98 46.86 49.30 52.63 56.13	FT/SEC F 518.5 532.1 551.1 575.4 636.4 701.3 734.7	7/SEC 766.9 745.4 737.7 812.6 895.3 981.7 1035.2	193.7 155.0 96.1 -43.2 -207.8 -348.2 -435.9	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4 -859.5	542.0 542.0 561.3 583.3 646.6 733.2 819.5 882.8	568.3 584.5 603.8 660.7 740.2 822.2 884.0
% SPAN 5 10 15 30 50 70	DIA-1 1N 1 17.720 18.350 19.070 21.140 23.970 26.790 28.860	16.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	878.9 678.7 869.3 832.1 798.1 769.4 741.2 724.3	T/SEC F 487.0 496.2 507.5 559.7 586.6 594.2 577.3 553.1	7/SEC F 480.8 598.9 542.2 572.6 600.6 608.2 591.3 565.3	7/SEC 6 485.8 495.1 503.3 555.6 583.6 592.8 576.8	735.7 716.3 679.4 603.5 525.4 471.3 446.9	7.5EC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70	-2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 56.13	FT/SEC F 518.5 532.1 551.1 575.4 636.4 701.3 734.7	7/SEC 766.9 745.4 737.7 812.6 895.3 981.7 1035.2	77/SEC 7 193.7 155.0 96.1 -43.2 -207.8 -348.2 -435.9 -451.3	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4 -859.5 -880.7	542.0 561.3 583.3 646.6 733.2 819.5 882.8 904.5	568.3 584.5 603.8 660.7 740.2 822.2 884.0 905.4
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	16.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	878.9 678.7 869.3 632.1 798.1 769.4 741.2 724.3 708.1	T/SEC F 487.0 496.2 507.5 559.7 586.6 594.2 577.3 553.1 530.1	T/SEC F 480.8 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2	#85.8 #95.1 503.3 \$55.6 583.6 592.8 576.8 \$52.6 \$29.9	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0	7.5EC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70	2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55	-21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65	DEGREE 50.67 48.37 46.98 46.86 49.30 52.63 56.13 57.89	FT/SEC F 518.5 532.1 551.1 575.4 636.4 701.3 734.7 723.7 712.7	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1	77/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -466.0	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4 +859.5 -880.7 -912.3	542.0 561.3 583.3 646.6 733.2 819.5 882.8 904.0	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS	16.580 19.110 19.740 21.600 24.200 26.880 25.900 29.600 30.270	FT/SEC F 878.9 678.7 869.3 632.1 798.1 769.4 741.2 724.3 708.1	T/SEC F 487.0 496.2 507.5 559.7 586.6 594.2 577.3 553.1 530.1	T/SEC F 480.8 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2	FT/SEC F 485.8 495.1 503.3 555.6 583.6 592.8 576.8 529.9 SOLIDTY	735.7 716.3 679.4 603.5 525.4 471.3 446.9 459.0	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 23.6	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70 40.41	2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65	DEGREE 50.67 48.37 46.98 46.86 49.30 52.63 57.89 59.85	518.5 532.1 551.1 575.4 636.4 701.3 734.7 723.7 712.7 EFF-AD	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1	77/SEC 7 193.7 155.0 96.1 -43.2 -207.8 -348.2 -435.9 -451.3	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4 -859.5 -880.7	542.0 561.3 583.3 646.6 733.2 819.5 882.8 904.5	568.3 584.5 603.8 660.7 740.2 822.2 884.0 905.4
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.860 29.570 30.240 INCS DEGREE (	16.580 19.110 19.740 21.600 24.200 26.880 25.900 29.600 30.270 INCM	FT/SEC F 878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGREE F	TVSEC F 487-0 496-2 507-5 559-7 586-6 594-2 577-3 553-1 530-1 TURN (DEGREE I	57/SEC F 480.8 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER DEGREE	#85.8 495.1 503.3 \$55.6 583.6 592.8 \$76.8 \$52.6 \$29.9	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0	7.5EC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70 40.41 LOSS-P	2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47 LOSS-P	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83	DEGREE 50.67 48.37 46.86 49.30 52.63 56.13 57.89 59.85 OMEGA-B	518.5 532.1 551.1 551.1 575.4 701.3 734.7 723.7 712.7 EFF-AD TOTAL	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P STATIC	77/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -451.3 -466.0	T/SEC F -593.3 -557.1 -539.3 -678.9 -782.4 +859.5 -880.7 -912.3 M-2	542.0 561.3 583.3 646.6 819.5 882.8 904.5 925.0	FT/SEC \$68.3 \$84.5 660.7 740.2 822.2 884.0 905.4 925.9
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE ( 7-01	16.580 19.110 19.740 21.600 24.200 26.880 25.900 29.600 30.270 INCM EGREE 10.99	878.9 678.7 869.3 632.1 798.1 769.4 741.2 724.3 708.1 DEV DEGKEE 1	TVSEC F 487.0 496.2 507.5 559.7 586.6 594.2 577.3 553.1 TURN C DEGREE C	## 15   15   15   15   15   15   15   15	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 576.8 52.6 529.9	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70 40.41 LOSS-P TOTAL .0380	-2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47 LOSS-P PROFILE	DEGREE -21.93 -16.94 -10.06 4.25 19.75 36.40 38.65 40.83	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 57.89 59.85	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 712-7 EFF-AD TOTAL •0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P STATIC	FT/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -451.3 -466.0 M-1	T/SEC F -593.3 -557.1 -539.3 -578.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2	542.0 561.3 583.3 646.6 7319.5 882.8 904.5 925.0 M*-1	FT/SEC 568.3 584.8 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 1N-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE ( 7-01 6-52	18.580 19.110 19.740 21.600 24.200 26.880 25.900 30.270 INCM DEGREE 10.99 10.77	878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGKEE [ 13.53 19.07	TVSEC F 487-0 496-2 507-5 559-7 586-6 594-2 577-3 530-1 TURN C DEGREE 7 51-45	7/SEC F 480.8 508.9 542.2 572.6 600.6 608.2 591.3 565.3 565.3 565.3 5268EE 62.54 59.53	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 529.9 SOLIDTY 2.1081 2.0313	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 23.6 OMEGA-B	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70 40.41 LOSS-P TOTAL .0380 .0481	-2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47 LOSS-P PROFILE .0380	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 PO2/1	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 57.89 59.85 0MEGA-B HOCK	518.5 532.1 551.1 575.4 636.4 701.3 734.7 723.7 723.7 712.7 EFF-AD TOTAL .0000 .0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1035.1 EFF-P STATIC -8049	FT/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -451.3 -466.0 M-1 7838 .7838	T/SEC F -593.3 -557.1 -539.3 -593.0 -678.9 -782.4 +859.5 -912.3 M-2 .4177 .4259	T/SEC   542.0   561.3   583.3   646.6   6733.2   819.5   882.8   904.5   925.0   M*=1   .4647   .4785	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6397
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17-720 18-350 19-070 21-140 23-970 26-790 28-860 29-570 30-240 INCS DEGREE ( 7-01	18.580 19.110 19.740 21.600 24.200 26.880 25.900 29.600 30.270 INCM DEGREE 10.99 10.77 9.79	878.9 678.9 678.9 689.3 632.1 798.1 749.4 741.2 724.3 708.1 DEV DEGREE 1 13.53 19.07 22.72	T/SEC F 487-0 496-2 507-5 559-7 586-6 594-3 553-1 530-1 TURN (DEGREE [ 59-79 51-45 44-11	480.8 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER DEGREE 62.54 59.53 57.01	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 552.6 529.9 SOLIDTY 2.1081 2.0313 1.9507	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B .1604 .1959 .2041	56.83 54.60 51.40 46.49 41.17 37.76 37.09 36.70 40.41 LOSS-P TOTAL .0380 .0481	-2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47 LOSS-P PROFILE .0380 .0481	DEGREE -21.93 -16.94 -10.06 4.25 19.01 38.65 40.83 PO2/( PO1 SI .93463 .93329	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 57.89 59.85	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 712-7 EFF-AD TOTAL •0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7401	FT/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -451.3 -466.0 M-1	T/SEC F -593.3 -557.1 -539.3 -578.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2	542.0 561.3 583.3 646.6 7319.5 882.8 904.5 925.0 M*-1	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 17.01 6.52 5.46	18.580 19.110 19.170 21.600 24.200 26.880 28.990 29.600 30.270 INCM DEGREE 10.99 10.77 9.79 8.85	878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGKEE [ 13.53 19.07	T/SEC F 487-0 496-2 507-5 559-7 586-6 594-2 577-3 553-1 530-1 TURN (DEGREE () 59-79 51-45-4 44-11 39-54	572.6 480.8 508.9 542.9 572.6 600.6 608.2 591.3 539.2 CAMBER 52 GREE 62.54 59.51 57.51	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 529.9 SOLIDTY 2.1081 2.0313	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B -1604 -1959 -2041 -1190	56.83 54.60 51.40 46.49 41.17 37.79 36.70 40.41 LOSS-P TOTAL .0350 .0461 .0519	-2.96 3.16 7.29 6.95 6.00 3.64 2.44 2.55 1.47 LOSS-P PROFILE .0380 .0481 .0519	DEGREE -21.93 -16.94 -10.96 4.25 19.01 29.75 36.40 83 P02/ P01 Si .9463 .9345 .9329 .9637	DEGREE 50.67 48.37 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000	518-5 532-1 551-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL -0000 -0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7401	FT/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.2 -455.9 -451.3 -466.0 M-1 7838 .7838 .7838 .7753 .7409	T/SEC F -593.3 -557.1 -537.1 -578.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4362	T/SEC   542.0   561.3   583.3   646.6   733.2   819.8   904.5   925.0   M* ~1   .4647   .4724	FT/SEC \$68.3 \$84.5 \$643.8 \$660.7 740.2 \$88*.0 905.4 925.9 M*-2 .6579 .6342 .7020
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07	18.580 19.110 19.170 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE 10.97 9.79 8.85 7.27 6.35	878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGREE 1 13.53 22.72 21.02 16.65	TVSEC F 487-0 496-2 507-5 559-7 586-6 594-6 577-3 553-1 530-1 TURN ( DEGREE [ 57-74 44-11 39-54 35-16 33-92	FT/SEC F 480.6 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER S 62.54 62.54 62.54 44.60 44.20	#85.8 495.6 495.6 503.3 \$55.6 582.8 576.8 \$52.6 \$29.9 SOLIDTY 2.1081 2.0313 1.9507 1.5570 1.5571 1.5877	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240 .5937 .5079 .4510 .4293	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B .1604 .1959 .2041 .1190 .0686 .0618	56.83 54.60 51.40 46.49 41.17 37.09 36.70 40.41 LOSS-P TOTAL .0350 .0350 .0350	-2.96 3.16 7.29 6.95 6.95 6.95 1.47 LOSS-P PROFILE .0380 .0519 .0336 .0220	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/4 P01 Si .9345 .9345 .9345 .9349 .9345 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9349 .9	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 56.13 57.89 59.85 0MEGA-B HOCK .0000 .0000 .0000	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 723-7 712-7 EFF-AD TOTAL .0000 .0000 .0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P SYATIC .7017 .7401 .8735.8	FT/SEC F 193.7 155.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 7838 .7753 .7409 .7081	T/SEC F-593.3 -593.3 -593.0 -678.9 -678.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4362 .4835 .5085 .5152	TVSEC 1 542.0 561.3 561.3 583.2 819.8 904.5 925.0 M· 1 .4647.5 108 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170 .5170	FT/SEC 568.3 584.5 663.8 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342 .7020 .7758 .8511
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26	18.580 19.110 19.170 21.600 24.280 26.880 26.880 27.900 1NCM EGREE 10.99 10.79 8.85 7.27 6.35 6.73	878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGREE 1 13.53 19.02 16.65 17.45	T/SEC F 487-0 496-2 507-5 559-7 586-6 594-7 530-1 TURN (DEGREE [ 59-79 51-44-11 39-54 33-92 34-65	57/SEC F 480.6 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER 62.54 57.01 51.74 44.60 44.20 45.25	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 552.6 529.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.5510 1.3877 1.2870	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 C-FAC .6466 .6240 .5937 .5079 .4423	FT/SEC -25.0 27.0 64.5 67.7 61.3 39.9 24.5 24.7 13.6 0MEGA-B .1604 .1959 .2041 .1190 .0686 .0613 .0745	56.83 54.60 51.40 46.49 41.17 37.09 38.70 40.41 LOSS-P TOTAL .0350 .0351 .0350 .0220 .0220 .0220	-2.96 3.16 7.29 6.95 6.95 6.00 2.44 2.55 1.47 LOSS-P PROFILE 0380 0481 0519 0336	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 SI .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .9345 .93	DEGREE 50.67 48.36 46.98 46.86 49.30 56.13 57.89 59.85 0MEGA-B HOCK 0000 0000 0000 0000 0000	518-5 532-1 551-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL .0000 .0000 .0000 .0000	766.9 745.4 745.4 737.7 812.6 895.3 995.3 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8735 .8706	TYSEC 7 193.7 195.0 96.1 -43.2 -207.8 -348.9 -455.9 -451.3 -466.0 M-1 .7838 .7838 .7753 .7409 .7081 .6805 .6528	T/SEC F-593.3 -557.1 -539.3 -678.9 -678.9 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4835 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085	T/SEC 1 542.0 561.3 561.3 5646.6 733.2 819.8 904.5 925.0 M· 1 .4647 .4785 .5108 .5617 .6466	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342 .7020 .7020 .7511 .8952
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26 .24 1.73	18.580 19.110 19.1740 21.660 24.200 26.880 25.900 29.600 30.270 INCM EGREE 10.99 10.77 9.79 8.85 7.27 6.35 8.32	78.9 878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEGREE 13.53 19.07 22.72 21.02 16.65 16.63 17.45 18.27	T/SEC F 487-0 496-2 507-5 559-7 586-6 594-2 577-3 553-1 530-1 TURN (DEGREE (DE	572.6 600.6 600.6 598.2 591.3 591.3 539.2 CAMBER 52.54 59.51 57.01 51.74 44.60 44.20 45.25 45.96	#85.8 #85.8 #95.1 503.3 \$55.6 583.6 592.8 \$576.8 \$52.6 \$29.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.5510 1.3877 1.2870 1.2556	735.7 716.3 679.4 603.5 525.4 471.3 452.7 459.0 D-FAC .5937 .5079 .4510 .4293 .4715	FT/SEC -25.0 27.5 64.5 67.7 61.3 39.9 24.5 24.7 13.6 0MEGA-B .1604 .1959 .2041 .1190 .0686 .0618 .0745	56.83 54.60 51.40 46.49 41.17 37.76 37.76 37.76 9.36.70 40.41 LOSSP 0.04b1 .0519 .0336 .0220 .0222 .0282	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 36.65 40.83 P02/ 9345 9345 9345 9385 9836 9815 9781	DEGREE 50.67 48.37 46.98 46.86 49.30 52.83 56.13 57.89 59.85 0000 0000 0000 0000 0000 0000 0000 0	FT/SEC F 518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000	745-6.9 745-7 766-9 745-7 812-6 895-3 995-3 1039-8 1055-1 EFF-P STATIC -8049 -7617 -7401 -8167 -8746 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486 -8486	T/SEC 7 193.7 155.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 .7838 .7853 .7409 .7081 .6805 .6805 .6805 .6805	T/SEC F-593.3557.1 -539.3 0 -678.9 -7859.5 -880.7 -912.3 M-2 .4177 .4252 .4835 .5085 .5193 .4763	T/SEC 1 542.0 561.3 5646.6 733.2 819.8 802.8 904.5 925.0 M· 1 .4647 .4702.4 56166 .6347	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342 .7020 .7758 .8511 .8952
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26	18.580 19.110 19.1740 21.660 24.200 26.880 25.900 29.600 30.270 INCM EGREE 10.99 10.77 9.79 8.85 7.27 6.35 8.32	878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEV DEGREE 1 13.53 19.02 16.65 17.45	T/SEC F 487-0 496-2 507-5 559-7 586-6 594-2 577-3 553-1 530-1 TURN (DEGREE (DE	572.6 600.6 600.6 598.2 591.3 591.3 539.2 CAMBER 52.54 59.51 57.01 51.74 44.60 44.20 45.25 45.96	#85.8 495.1 503.3 555.6 583.6 592.8 576.8 552.6 529.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.5510 1.3877 1.2870	735.7 716.3 679.4 603.5 525.4 471.3 452.7 459.0 D-FAC .5937 .5079 .4510 .4293 .4715	FT/SEC -25.0 27.0 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B .1604 .1959 .2041 .1190 .0686 .0618 .0745	56.83 54.60 51.40 46.49 41.17 37.76 36.70 40.41 LOSS-P TOTAL .0350 .0240 .0220 .0222 .0289 .0373	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 Si .9463 .9369 .9805 .9805 .9778 .9756	DEGREE 50.67 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000 0000 0000 0000 0000	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000 0	766.9 745.4 737.7 812.6 895.3 995.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8735 .8126 .7845	TYSEC 7 193.7 195.0 96.1 -43.2 -207.8 -348.9 -455.9 -451.3 -466.0 M-1 .7838 .7838 .7753 .7409 .7081 .6805 .6528	T/SEC F-593.3 -557.1 -539.3 -678.9 -678.9 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4835 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085 .5085	T/SEC 1 542.0 561.3 5646.6 733.2 819.8 802.8 904.5 925.0 M· 1 .4647 .4702.4 56166 .6347	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342 .7020 .7020 .7511 .8952
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26 .24 1.73	18.580 19.110 19.170 21.600 24.200 26.880 25.900 30.270 INCM EGREE 10.99 10.97 9.79 8.85 7.27 6.33 8.32 10.02	741.2 724.3 708.1 769.4 741.2 724.3 708.1 DEV DEGREE 1 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53 13.53	T/SEC F 487-0 496-2 507-5 559-7 584-6 594-6 594-1 530-1 TURN (DEGREE [ 59-79 44-11 39-54 35-16 33-92 34-65 38-94	FT/SEC F 480.0 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER 62.54 62.54 57.01 51.74 44.60 45.25 45.96 46.75	#85.8 495.1 503.3 555.6 583.6 583.6 576.8 552.6 529.9 SOLIDTY 2.1081 2.1081 2.1081 1.9507 1.5510 1.3877 1.2870 1.2870 1.2556 1.2272	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 C-FAC .6466 .6240 .5937 .459.0 4293 .4715 .5075	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 OMEGA-B •1604 •1959 •2041 •1190 •0619 •0745 •0937 •1078	56.83 54.60 51.40 46.49 41.17 37.76 37.76 37.76 9.36.70 40.41 LOSSP 0.04b1 .0519 .0336 .0220 .0222 .0282	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 Si .9463 .9369 .9805 .9805 .9778 .9756	DEGREE 50.67 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000 0000 0000 0000 0000	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000 0	766.9 745.4 737.7 812.6 895.3 995.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8735 .8126 .7845	TYSEC 7 193.7 195.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 .7838 .7753 .7409 .7838 .7753 .7409 .76815 .6528 .6353 .6175	T/SEC 5-593.3 -593.3 -593.0 -678.9 -678.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4362 .4835 .5085 .5085 .4993 .4546	T/SEC 0 561.3 3 646.6 6473.2 819.8 904.5 925.0 M· 1 .4647 .5108 .5617 .6866 .6347 .6205	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M*-2 .6579 .6342 .7020 .7758 .8511 .8952 .8954
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26 .24 1.73	18.580 19.110 19.170 21.600 24.280 26.880 26.880 29.600 30.270 INCM EGREE 10.99 10.79 8.85 7.27 6.35 6.73 8.32 10.02	78.9 878.9 678.7 869.3 632.1 798.1 741.2 724.3 708.1 DEGREE 13.53 19.07 22.72 21.02 16.65 16.63 17.45 18.27	T/SEC F 487-0 496-2 597-5 559-7 586-6 594-7 530-1 TURN (C)EGREE [ 59-79 51-44-11 39-54 33-92 34-65 38-94 wc/A-1	T/SEC F 480.9 508.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER 62.54 57.01 51.74 44.60 44.20 45.25 45.96 46.75	#85.8 #85.8 #95.1 503.3 \$55.6 583.6 592.8 \$576.8 \$52.6 \$29.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.5510 1.3877 1.2870 1.2870 1.2556 1.2272	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240 .5937 .5079 .4293 .4715 .5075	FT/SEC -25.0 27.0 64.5 67.7 61.3 39.9 24.5 24.7 13.6 0MEGA-B .1604 .1959 .2041 .1190 .0686 .0745 .0937 .1078	56.83 54.60 51.40 46.49 41.17 37.76 37.76 37.76 9.36.70 40.41 LOSSP 0.04b1 .0519 .0336 .0220 .0222 .0282	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 Si .9463 .9369 .9805 .9805 .9778 .9756	DEGREE 50.67 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000 0000 0000 0000 0000	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000 0	766.9 745.4 737.7 812.6 895.3 995.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8735 .8126 .7845	T/SEC 7 193.7 155.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 .7838 .7853 .7409 .7081 .6805 .6805 .6805 .6805	T/SEC F-593.3 -557.1 -539.3 -678.9 -678.9 -678.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4362 .4835 .5185 .5185 .4763 .4546 [A-2 SI	T/SEC 0 561.3 3 646.6 6473.2 819.8 904.5 925.0 M· 1 .4647 .5108 .5617 .6866 .6347 .6205	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M'-2 .6579 .6342 .7020 .77511 .8952 .8954 .9047 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26 .24 1.73	18-580 19-110 19-110 21-600 24-290 26-880 25-900 29-690 30-270 INCM DEGREE 19-99 10-97 9-79 8-85 7-27 6-35 6-73 8-32 10-02	741.2 724.3 708.1 769.4 741.2 724.3 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1	TVSEC F 487-0 496-0 496-0 507-5 559-7 586-6 594-5 577-3 553-1 530-1 TURN ( DEGREE [ 59-79-3 44-11 39-54 435-16 33-92 34-65 36-15 38-94	T/SEC F 480.0 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER: 62.54 62.54 44.60 45.25 45.96 46.75 T02	#85.8 #95.8 #95.3 \$55.6 \$83.6 \$76.8 \$52.6 \$29.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.2870 1.2870 1.2870 1.2870 1.2870 1.2272 P02/ P01	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240 .5937 .5079 .4510 .4293 .4715 .5075	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 0MEGA-B .1604 .1959 .2041 .1190 .0686 .0618 .0745 .0937 .1076	56.83 54.60 51.40 46.49 41.17 37.76 37.76 37.76 9.36.70 40.41 LOSSP 0.04b1 .0519 .0336 .0220 .0222 .0282	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 Si .9463 .9369 .9805 .9805 .9778 .9756	DEGREE 50.67 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000 0000 0000 0000 0000	518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000 0	766.9 745.4 737.7 812.6 895.3 995.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8735 .8126 .7845	TYSEC 7 193.7 195.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 .7838 .7753 .7409 .7838 .7753 .7409 .76815 .6528 .6353 .6175	T/SEC F-593.3 -593.0 -578.9 -579.3 -593.0 -678.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4362 .5152 .4993 .4763 .4546 KA-2 SI	T/SEC 0 541.3 542.0 561.3 646.6 733.2 819.8 904.5 925.0 M· 1 .4647.5 .4924 .5108 .5616 .6347 .6466 .6347 .6725 ANT-1 GREE	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M'-2 .6579 .6342 .7020 .7758 .8511 .8952 .8954 .8954 SLANT-2 DEGREE
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE ( 7.01 6.52 5.46 4.07 1.79 .26 .24 1.73	18-580 19-110 19-110 21-600 24-290 26-880 25-900 29-690 30-270 INCM DEGREE 19-99 10-97 9-79 8-85 7-27 6-35 6-73 8-32 10-02	741.2 724.3 708.1 708.1 741.2 724.3 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 708.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1 709.1	TVSEC F 487-0 496-0 496-0 507-5 559-7 586-6 594-5 577-3 553-1 530-1 TURN ( DEGREE [ 59-79-3 44-11 39-54 435-16 33-92 34-65 36-15 38-94	T/SEC F 480.0 508.9 542.2 572.6 600.6 608.2 591.3 565.3 539.2 CAMBER: 62.54 62.54 44.60 45.25 45.96 46.75 T02	#85.8 #95.8 #95.3 \$55.6 \$83.6 \$76.8 \$52.6 \$29.9 SOLIDTY 2.1081 2.0313 1.9507 1.7577 1.2870 1.2870 1.2870 1.2870 1.2870 1.2272 P02/ P01	735.7 716.3 679.4 603.5 525.4 471.3 446.9 452.7 459.0 D-FAC .6466 .6240 .5937 .5079 .4510 .4293 .4715 .5075	FT/SEC -25.0 27.4 64.5 67.7 61.3 39.9 24.5 24.7 13.6 0MEGA-B .1604 .1959 .2041 .1190 .0686 .0618 .0745 .0937 .1076	56.83 54.60 51.40 46.49 41.17 37.76 37.76 37.76 9.36.70 40.41 LOSSP 0.04b1 .0519 .0336 .0220 .0222 .0282	-2.96 -2.96 -3.16 -7.29 -6.95 -6.95 -6.95 -2.44 -2.55 -1.47 LOSS-P -PROFILE -0380 -0481 -0519 -0336 -0220 -0222 -02373	DEGREE -21.93 -16.94 -10.06 4.25 19.01 29.75 36.40 38.65 40.83 P02/ P01 Si .9463 .9369 .9805 .9805 .9778 .9756	DEGREE 50.67 46.98 46.86 49.30 56.13 57.89 59.85 OMEGA-B HOCK 0000 0000 0000 0000 0000 0000	FT/SEC F 518-5 532-1 551-1 575-4 636-4 701-3 734-7 723-7 723-7 712-7 EFF-AD TOTAL 0000 0000 0000 0000 0000 0000 0000	766.9 745.4 737.7 812.6 895.3 981.7 1035.2 1039.8 1055.1 EFF-P STATIC .8049 .7617 .7401 .8167 .8736 .8736 .8736 .8736	TYSEC 7 193.7 195.0 96.1 -43.2 -207.8 -348.9 -451.3 -466.0 M-1 .7838 .7753 .7409 .76815 .6528 .6353 .6175	T/SEC F-593.3 -593.0 -578.9 -782.4 -859.5 -880.7 -912.3 M-2 .4177 .4259 .4362 .4933 .4546 [A-2 SI	T/SEC 1 542.0 561.3 3 646.6 6733.2 819.8 892.8 904.5 925.0 M· 1 .4645 .5108 .5616 .6347 .6205 .ANT-1	FT/SEC 568.3 584.5 660.7 740.2 822.2 884.0 905.4 925.9 M'-2 .6579 .6342 .7020 .7758 .8511 .8952 .8954 .8954 SLANT-2 DEGREE

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#### APPENDIX 4

Blade-Element and Overall Performance with Radial Inlet Distortion

#### Blade-Element and Overall Performance with Stator-Hub Slit Suction 80% of Design Speed

~ ~~	DIA-1		V -1	<b>v-</b> 2	VM-1	VM-2	v0-1	_V0-2	B-1	8-2	B*-1	81-2	V*-1		VC '-1		U <b>-1</b>	U=2
% SPAN 5		IN 16 070	FT/SEC				FT/SEC_F											
10		16.030					• 0	7c9.5	.00 .00	51.22 50.13		-27.43	598.9		-338.5 -363.8			
15		17.560					• 3	643.3	.00	47.98		-18.11	645.7		-391.4			
30		19.910					. č	536.2	.00	42.60		-2.16	719.9		-471.7	22.4		
50	22.190	23.090			552.5		9	439.7	.00	39.44	46.0¢	16.31	795.8		-572.6		572.6	
70		26 • 260					• 9	399.1	.00	41.29	54.98	31.49	815.9	534.0	-667.8	-275.5	667.8	677.6
85		28.610					• Ú	398.8	.00	45.67	00.95	41.25	239.8		-734.1			
90		29.410					• 0	407.0	.00	49.38		45.23	357.7		-756.5			
95	30.130	30.180	405.9	522.7	405.9	327.4	• 0	407.4	•00	51.22	62.44	48,58	377 <b>.5</b>	495.2	<del>-</del> 777.9	-371.3	777.9	778.7
	INCS	INCM	DEV	TURN .	CAMBER S	Salicty	D-FAC C	ME GA-B	LOSS=P	Loss-P	P02/	EFF-P F	FF-AD W	MEGA-B	4-1	M=2	24-1	M1-2
SPAN	DEGREE	DEGREE	DEGREE				•	•			P01 T				•		_	_
5	-6.51		9•76	61.85		2.4323	.1954	.2346	.0426		1.3124			.0000	.4516	.8313	.5489	.5866
10	-5.41					2.2844	.2477	. 1333	.0267		1.341	.9187	·9i53	.0000	<b>.</b> 4585	.8155		
15	-5.00					2.1562	.3027	.1000	•0220		1.3393	.9325	.9297	.0000	.4727	.7860		
30	-4.20					1.9035	3909	.0434	•0114		1.3296	.9619	9604	.0000	.4988	.7135		
50 70	-2.54 3.81					1.6906	.4660	-0807	.0229		1.2944	.9135	.9103	.0000	.5069	6176		
70 85	7.82		,			1.5349	,506 <b>0</b> ,5521	.0437 .0774	.0122 .0202		1.3197	.9522 .9196	.9502 .9162	•9000 •0000	.4247 .3666	.5344 .4869		
90	7.72					1.4148	5892	1353	0337		1.3297	.8609	.6551	.0000	.3670	.4687		
95	7.39			13.86		1.3888	6030	1691	•0403		1.3225	8233	.9162	.0300	.3685	.4551	_	
			_	<del>-</del> ·		_									•	•	• • • • •	
				WC/A-1		PC2/	EFF-AD							9	STA-1 ST			SLANT-2
		MPM L		LBM/SEC SQFT	70 <u>1</u>	P01	>	4								D	EGREE	DEGREE
		5913	_		1.0900	1.3189	91.494	91.80							5.0	5.0	86.05	95.02
STAT	ГOR						•	•							3.0	0,0		
	DIA-1	DIA-2	V-1	<b>v-</b> 2	VM-1	VM-2	V0-1	V0-2	B-1	B-2	B*-1	B'-2	V'-1		∀0°-1		U-1	U-2
% SPAN		DIA-2 In	V-1 FT/SE¢	V-2 F*/SEC	VM-1 FT/SEC	VM-2 FT/SEC	VO-1 FT/SEC F	V0-2	EGRÉE D	B-2 EGREE I	B'-1 DEGREE D	EGREE F	T/SEC F	T/SEC F	T/SEC F	T/SEC	FT/SEC	FIZSEC
5	IN	DIA-2 IN 18.580	FT/SEC	F"/SEC 554.1	FT/SEC   529.3	FT/SEC   553.8	FT/SEC F 639.7	13.9	EGREE D	EGREE 1	-19.02	EGREE F	T/S€C F 559.8	7/SEC F	182.4	T/SEC -465.5	FT/SEC 457.2	FY/SEC 479.4
5 10	17.720 18.350	IN 18.580 19.110	FT/SE¢ 830.2 840.1	F*/SEC 554.1 569.2	529.3 556.6	553.8 567.5	FT/SEC F 639.7 629.1	13.9 42.2	50.40 48.50	1.43 4.24	EGREE D -19.02 -15.62	EGREE F 40.05 30.47	T/SEC F 559.8 578.1	7/SEC F 723.5 724.9	182.4 185.7	T/SEC -465.5 -450.9	FT/SEC 457.2 473.5	FY/SEC 479.4 493.1
5 10 15	1N 17.720 18.350 19.070	IN 18.580 19.110 19.740	FT/SE¢ 830.2 840.1 826.9	F*/SEC 554.1 569.2 580.4	FT/SEC   529.3 556.6 572.2	FT/SEC   553.8 567.5 578.5	FT/SEC F 639.7 629.1 596.7	T/SEC 1 13.9 42.2 47.5	50.46 48.50 46.20	1.43 4.24 4.70	DEĞREE D -19.02 -15.62 -10.39	EGREE F 40.05 30.47 30.60	T/SEC F 559.8 578.1 5-2.3	T/SEC F 723.5 724.9 740.3	182.4 185.7 104.7	T/SEC -465.5 -450.9 -461.8	FT/SEC 457.2 473.5 492.1	FY/SEC 479.4 493.1 509.3
5 10 15 30	17.720 18.350 19.070 21.140	IN 18.580 19.110 19.740 21.660	FT/SEc 830 - 2 840 - 1 826 - 9 790 - 6	FT/SEC 554.1 569.2 580.4 599.8	FT/SEC   529.3 556.6 572.2 606.6	553.8 557.5 578.5 578.5 599.2	FT/SEC F 639.7 629.1 596.7 506.9	T/SEC 1 13.9 42.2 47.5 26.5	50.40 50.40 48.50 46.20 39.86	EGREE 1 1.43 4.24 4.70 2.53	DEGREE D -19.02 -15.62 -10.39 3.61	EGREE F 40.05 30.47 30.60 41.53	T/SEC F 559.8 578.1 5-2.3 669.1	T/SEC F 723.5 724.9 740.3 800.6	182.4 155.7 104.7 -38.5	T/SEC -465.5 -450.9 -461.8 -530.9	FT/SEC 457.2 473.5 492.1 545.5	FY/SEC 479.4 493.1 509.3 557.3
5 10 15 30 50	1N 17.720 18.350 19.070 21.140 23.970	IN 18.580 19.110 19.740 21.660 24.200	FT/SE¢ 830-2 840-1 826-9 790-6 722-0	FT/SEC 554.1 569.2 580.4 599.8 567.2	529.3 529.3 556.6 572.2 606.6 583.9	FT/SEC 553.8 567.5 578.5 599.2 566.5	FT/SEC F 639.7 629.1 596.7 506.9 424.6	13.9 42.2 47.5 26.5 29.0	50.40 50.40 48.50 46.20 39.86 36.01	1.43 4.24 4.70 2.53 2.94	DEGREE D -19.02 -15.62 -10.39 3.61 18.36	EGREE F 40.05 30.47 30.60 41.53 46.42	T/SEC F 559.8 578.1 5-2.3 669.1 616.1	T/SEC F 723.5 724.9 740.3 800.6 822.0	T/SEC F 182.4 155.7 104.7 -38.5 -193.9	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4	FT/SEC 457.2 473.5 492.1 545.5 618.5	FY/SEC 479.4 493.1 509.3 557.3 624.4
5 10 15 30 50 70	17.720 18.350 19.070 21.140 23.970 26.790	IN 18.580 19.110 19.740 21.660 24.200 26.880	FT/SEc 830.2 840.1 826.9 790.6 722.0 649.4	554.1 569.2 580.4 599.8 567.2 503.1	529.3 556.6 572.2 606.6 583.9 519.7	FT/SEC 553.8 567.5 578.5 578.5 599.2 566.5 502.7	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5	T/SEC 1 13.9 42.2 47.5 26.5 29.0 20.0	50.40 50.40 48.50 46.20 39.86 36.01 36.86	1.43 4.24 4.70 2.53 2.94 2.26	0EGREE 0 -19.02 -15.62 -10.39 3.61 18.38 30.15	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25	T/SEC F 559.8 578.1 5:2.3 669.1 616.1 601.6	T/SEC F 723.5 724.9 740.3 800.6 822.0 840.7	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2	FY/SEC 479.4 493.1 509.3 557.3 624.4 693.6
5 10 15 30 50 70 85	17.720 18.350 19.070 21:140 23.970 26.790 28.860	IN 18.580 19.110 19.740 21.660 24.200 26.880 26.900	FT/SEc 830.2 840.1 826.9 790.6 722.0 649.4 611.0	F7/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2	FT/SEC   529.3 556.6 572.2 606.6 583.9 519.7 468.7	FT/SEC 553.8 567.5 578.5 578.5 599.2 566.5 502.7 463.9	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9	7/5EC   13.9 42.2 47.5 26.5 29.0 20.0	50.46 50.46 48.50 46.20 39.86 36.01 36.86 39.91	1.43 4.24 4.70 2.53 2.94 2.26 2.18	0EGREE 0 -19.02 -15.62 -10.39 3.61 18.38 30.15 36.98	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25 57.49	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 601.6 586.7	T/SEC F 723.5 724.9 740.3 800.6 822.0 840.7 863.4	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7	FY/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7
5 10 15 30 50 70 85	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.660 24.200 26.880 26.900	FT/SEc 830-2 840-1 826-9 790-6 722-0 649-4 611-0 596-0	F7/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2 443-6	FT/SEC   529.3 556.6 572.2 606.6 583.9 519.7 468.7	FT/SEC   553.8 567.5 578.5 578.5 599.2 566.5 502.7 463.9	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9 401.3	T/SEC 1 13.9 42.2 47.5 26.5 29.0 20.0	50.40 50.40 48.50 46.20 39.86 36.01 36.86 39.91 42.37	1.43 4.24 4.70 2.53 2.94 2.26	-19.02 -15.62 -10.39 -16.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -10.39 -1	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 601.6 586.7 570.0	T/SEC F 723.5 724.9 740.5 800.6 822.0 840.7 863.4 873.3	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8	7/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 +752.1	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7	FY/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8
5 10 15 30 50 70 85	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.850 29.570 30.240	IN 18.580 19.110 19.740 21.660 24.200 26.880 26.900 29.600 30.270	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0	F*/SEC 554.1 569.2 580.4 599.8 567.2 503.1 464.2 443.6	FT/SEC   529.3 556.6 572.2 606.6 583.9 519.7 468.7 440.3	FT/SEC 553.8 567.5 578.5 578.5 599.2 566.5 502.7 463.9 443.4	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9 405.8	13.9 42.2 47.5 26.5 29.0 20.0 17.7 3.2	50.40 50.40 48.50 46.20 39.86 36.01 36.86 39.91 43.99	EĞREE ( 1.43 4.24 4.70 2.53 2.94 2.28 2.18 1.48	-19.02 -19.02 -15.62 -10.39 -3.61 18.38 -30.15 -36.98 -39.43 -41.68	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25 57.49 59.46	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 601.6 586.7 570.0 563.0	T/SEC F 723.5 724.9 740.3 800.6 822.0 840.7 863.4 873.3 887.1	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 +752.1 -777.8	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.0 780.3	FY/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0
5 10 15 30 50 70 85 90	1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS	IN 18.580 19.110 19.740 21.660 24.200 26.880 25.900 29.600 30.270 INCM	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0 584.3	F*/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2 443-6 426-4	FT/SEC   529.3 556.6 572.2 606.6 583.9 519.7 468.7 440.3 420.4 CAMBER	FT/SEC 553.8 567.5 578.5 578.5 599.2 566.5 502.7 463.9 443.4	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9 401.3	13.9 42.2 47.5 26.5 29.0 20.0 17.7 3.2	50.40 48.50 46.20 46.20 36.86 36.86 39.91 42.37 43.99 LOSS-P	1.43 4.24 4.70 2.53 2.94 2.28 2.18 1.48 LCSS-F	-19.02 -15.62 -10.39 -3.61 18.38 30.15 36.98 39.43 41.68	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25 57.49 59.46	T/SEC F 559.8 578.1 5-2.3 609.1 616.1 601.6 586.7 570.0 563.0	T/SEC F 723.5 724.9 740.3 800.6 822.0 840.7 863.4 873.3 887.1	182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7	7/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 +752.1	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7	FY/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	IN 18.580 19.110 19.740 21.660 24.200 26.880 25.900 29.600 30.270 INCM DEGREE	FT/SEC 830.2 840.1 826.9 792.0 649.4 611.0 596.0 584.3 DEGREC	F*/SEC 554-1 569-2 580-4 597-2 567-2 503-1 464-2 443-6 426-4 TURN DÉGREE	FT/SEC 1 529.3 556.6 572.2 606.6 583.9 519.7 468.7 440.3 420.4 CAMBER DEGREE	FT/SEC   553.8   567.5   578.5   599.2   566.5   502.7   463.9   443.4   426.4   SOLIDTY	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9 401.3 405.8	13.9 42.2 47.5 26.5 29.0 20.0 17.7 11.7 3.2	50.40 48.50 46.20 39.86 36.86 39.91 42.37 43.99 LOSS-P	EGREE 1 1.43 4.24 4.70 2.53 2.94 2.28 2.18 1.48 .43 LCSS-P	-19.02 -15.62 -10.39 -3.61 18.36 30.15 36.98 39.43 41.68 P02/31 P01 SH	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 59.46 61.27 MEGA-B E	T/SEC F 559.8 578.1 5-2.3 609.1 601.6 586.7 570.0 563.0 FF-40 OTAL	T/SEC F 723.5 724.9 740.5 802.6 822.0 840.7 863.4 873.3 887.1	182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 +752.1 -777.8 M-2	FT/SEC 457-2 473-5 492-1 545-5 691-2 744-7 763-0 780-3	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .51	IN 18.580 19.110 19.740 21.660 24.200 26.880 25.900 29.600 30.270 INCM DEGREE 4.50	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0 584.3 DEV DEGREE 17.92	F*/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2 443-6 426-4 TURN DEGREE 48-97	FT/SEC 1 529.3 556.6 572.2 606.583.9 519.7 440.3 420.4 CAMBER 62.54	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   463.9   426.4   SOLIDTY   2.1061	FT/SEC F 639.7 629.1 596.7 506.9 424.6 389.5 391.9 401.3 405.8	13.9 42.2 47.5 26.5 29.0 17.7 11.7 3.2 0MEGA-B	50.46 48.50 48.50 46.20 39.86 36.01 36.86 39.1 42.37 43.99 LOSS-P TOTALF	1.43 4.24 4.70 2.53 2.94 2.28 2.18 1.48 .43 LCSS-F PROFILE .0286	DEGREE D -19.02 -15.62 -10.39 -3.61 18.38 30.15 36.98 41.68 PO2/SH .9625	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 61.27 MEGA-B E	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 601.6 586.7 570.0 563.0 FF-40	7/SEC F 723.5 724.9 740.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC 8115	T/SEC F 182.4 155.7 104.7 -38.5 -38.5 -301.8 -352.8 -361.7 -374.4 M-1	T/SEC -465.5 -450.9 -451.8 -530.9 -595.4 -673.5 -728.0 +752.1 -777.8 M-2	FT/SEC 457-2 473-5 492-1 545-5 691-2 744-7 763-0 780-3 M*-1	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M'-2
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 29.860 29.570 30.240 INCS DEGREE .51	IN 18.580 19.11U 19.740 21.600 26.880 26.900 30.270 INCM DEGREE 4.50 4.96	FT/SEC 830-2 840-1 826-9 722-0 649-4 611-0 596-0 504-3 DEGREC 20-20	F*/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2 443-6 426-4 TURN DEGREE 48-97	FT/SEC 3 529-3 556-6 572-2 606-6 583-9 519-7 468-7 440-4 CAMBER DEGREE 629-58	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   463.9   443.4   426.4   Soliday   2.1081   2.1295	FT/SEC F 639.7 629.1 596.9 424.6 389.5 391.9 401.3 405.8 D-FAC C	13.9 42.2 942.5 26.5 29.0 20.0 17.7 13.2 0MEGA-B .1205 .1523	50.46 48.50 46.20 39.86 36.01 36.86 39.91 43.99 LOSS-P TOTAL F .0226 .0374	1.43 4.24 4.70 2.53 2.94 2.26 2.18 1.48 1.43 LCSS-P PROFILE .0374	DEGREE D -19.02 -15.62 -10.39 3.61 18.38 30.15 36.98 39.43 41.68 PO2/3H PO1/5H .9517	DEGREE F 40.05 30.47 30.60 41.53 46.42 53.25 57.49 61.27 MEGA-B E 0.0000	T/SEC F 559.8 578.1 5:2.3 669.1 616.1 601.6 586.7 570.0 563.0	T/SEC F 723.5 724.9 740.5 500.6 622.0 840.7 863.4 873.3 887.1 EFF-P (TABLE .7654	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 -752.1 -777.8 M-2 .4854 .4990	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M'-1 .5110 .5218	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .51 .71	IN 18.580 19.110 19.740 21.660 24.200 26.880 29.600 30.270 INCM DEGREE 4.50 4.58	FT/SEC 830-2 840-9 790-6 722-0 641-0 596-0 594-3 DEGREE 17-92 20-13	F*/SEC 554-1 569-2 580-4 599-8 567-2 503-1 464-2 443-6 426-4 TURN DEGREE 48-97 44-26 41-50	FT/SEC 3 529.3 556.6 572.2 606.6 583.9 519.7 440.3 420.4 CAMBER DEGREE 62.54 59.58 57.05	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   463.9   426.4   SOLIDTY   2.1081   2.1081   2.1081   1.9469	FT/SEC F 639.7 629.1 596.7 596.9 424.6 3891.9 405.8 D-FAC C 5069 4651	13.9 42.5 42.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1314	50.46 50.46 48.50 48.50 39.86 36.01 36.81 39.91 42.37 43.99 LOSS-P TOTAL F .0266 .0374 .0336	1.43 4.24 4.70 2.53 2.94 2.26 2.18 1.48 43 PROFILE .0374 .0374	DEGREE D -19.02 -15.62 -10.39 3.61 18.36 30.15 36.98 39.43 41.68 PO2/31 PO1/5H .9625 .9514	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 61.27 MEGA-B E 0CK 1 .0000 .0000	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 636.7 570.0 563.0 FF-40 OTAL S .0000 .0000	T/SEC F 723.5 724.9 740.3 500.6 622.0 840.7 663.4 873.3 887.1 EFF-P TATIC .7654 .7654	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -361.7 -374.4 M-1 .7533 .7565 .7444	T/SEC -465.5 -450.9 -461.8 -530.9 -530.9 -752.1 -777.8 M-2 .4854 .4990 .5098	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M'-1 .5110 .5218 .5273	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -51 -71	IN 18.580 19.110 19.710 21.660 24.200 26.880 25.90.270 INCM DEGREE 4.50 4.96 4.38 2.06	FT/SEC 830.2 840.1 826.9 722.0 649.4 611.0 596.0 58*.3 DEV DEGREC 17.92 20.22 20.23	F*/SEC 554-1 569-2 599-8 567-2 503-1 464-2 443-6 426-4 TURN DÉGREE 48-97 44-26 41-50 37-33	FT/SEC 3 529-3 556-6 572-2 583-9 519-7 440-3 420-4 CAMBER 62-54 59-58 57-05 51-79	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   443.4   426.4   50LIDTY   2.1051   2.1051   2.1459   1.7532	FT/SEC F 639-7 629-7 596-9 424-6 3891-9 405-8 D-FAC C 5069 4905 4051 4125	13.9 42.5 26.5 29.0 20.0 17.7 3.2 0MEGA-B .1205 .1513 .1707	DEGREE D 50.46 48.50 48.50 39.86 36.01 36.86 39.91 42.37 43.99 LOSS-P TOTAL P 0286 0374 0336 0200	1.43 4.24 4.70 2.53 2.94 2.26 2.18 1.48 .43 LCSS-P PROFILE .0386 .0336	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P02.5 -9517 .9625 .9517 .9799	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 61.27 MEGA-B E 0CK 0000 .0000	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 630.7 570.0 563.0 FF-AD OTAL S	T/SEC F 723-5 724-3 800-6 822-0 840-7 863-4 873-3 887-1 EFF-P TATIC -8115 -7653 -8638	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 -752.1 -777.8 M-2 .4854 .4990	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5218 .5273	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6535 .6592 .7062
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE .51 .71	IN 18.580 19.110 19.740 21.660 26.880 26.900 29.600 30.270 INCM DEGREE 4.50 4.96 2.04	FT/SEC 830.2 840.1 826.9 792.0 649.4 611.0 596.0 DEGREE 17.92 20.23 20.13 16.56	F*/SEC 554-1 569-2 580-8 599-8 567-2 503-1 464-2 44-26 426-4 TURN DÉGREE 48-97 44-26 41-50 37-33 33-08	FT/SEC 529-3 556-6 572-2 606-583-9 519-7 440-3 420-4 CAMBER DEGREE 59-58 57-05 44-70	FT/SEC   553.8   567.5   579.2   566.5   599.2   566.5   502.7   43.9   426.4   SOLIDTY   2.1081   2.12469   1.7532   1.5490	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.5 391.3 405.8 D-FAC C .5069 .4905 .4651 .4125 .3901	13.9 42.5 47.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1523 .1314 .0701	DEGREE D 50.46 48.50 46.20 36.86 36.01 36.86 39.91 42.37 43.99 LOSS-P TOTAL P .0266 .0374 .0336 .0200 .0124	1.24 1.43 4.27 2.53 2.94 2.28 1.48 1.48 1.43 1.43 1.43 1.43 1.43 1.43 1.43 1.43	DEGREE D -19.02 -15.62 -10.39 18.36 18.36 30.15 36.98 41.68 P02.5H .9625 .9517 .9594 .9903	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 61.27 MEGA-B E 0CK 1 .0000 .0000	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 601.6 586.7 570.0 563.0 FF-4D S .0000 .0300 .0300	T/SEC F 723-5 724-3 600-6 622-0 840-7 863-3 887-1 EFF-P T-ATIC -7654 -9133	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -673.5 -728.0 -752.1 -777.8 M-2 .4854 .4998 .5290	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5218 .5273 .545.5	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6572 .7062 .7245
5 10 15 30 50 70 85 90 95	1N 17.723 18.350 19.070 21.140 23.970 28.860 29.570 30.240 1NCS DEGREE .51 .71 .054	IN 18.580 19.110 19.110 19.740 21.660 26.880 26.990 29.600 30.270 INCM DEGREE 4.50 4.50 2.06 2.04 5.35	FT/SĒC 830.2 840.1 826.9 799.6 649.4 611.0 596.0 584.3 DEV 17.92 20.23 20.13 16.56 13.66	F*/SEC 554-1 569-8 599-8 567-2 503-1 464-2 443-6 426-4 TURN DÉGREE 48-97 41-50 37-33 33-38	FT/SEC 3 529.3 556.2 606.6 583.9 5168.7 440.3 420.4 CAMBER DEGREE 62.55 51.79 44.31	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   443.4   426.4   50LIDTY   2.1051   2.1051   2.1459   1.7532	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.9 401.3 405.8 0-FAC C 5069 .4651 .4125 .4299	13.9 42.5 47.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1314 .0786 .0668	DEGREE D 50.46 48.50 48.50 39.86 36.01 36.86 39.91 42.37 43.99 LOSS-P TOTAL P 0286 0374 0336 0200	1.43 4.24 4.70 2.53 2.94 2.26 2.18 1.48 .43 LCSS-P PROFILE .0386 .0336	DEGREE D -19.02 -15.39 -10.39 3.61 18.38 30.18 30.18 39.43 41.68 P02/5H .9525 .9594 .9594 .9599 .9865	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 61.27 MEGA-B E 0000 .0000 .0000	T/SEC F 559.8 578.1 5-2.3 669.1 616.1 630.7 570.0 563.0 FF-AD OTAL S	T/SEC F 723-5 724-3 800-6 822-0 840-7 863-4 873-3 887-1 EFF-P TATIC -8115 -7653 -8638	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465	T/SEC -465.5 -450.9 -461.8 -530.9 -595.4 -728.0 -752.1 -777.8 M-2 .4854 .4990 .5098 .4999	FT/SEC 457.2 479.2 479.2 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5273 .5490 .5339	FYSEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502 .7062 .7245 .7363 .7516
5 10 15 30 50 70 85 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .511 .05 -2.74 -3.46	IN 18.580 19.110 19.110 21.600 24.200 26.880 26.900 29.600 30.270 INCM DEGREE 4.50 4.56 4.58 2.06 2.04 5.35 5.35 9.41	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0 594.3 DEV DEGREC 17.92 20.13 16.56 13.66 15.17 17.23	F*/SEC 554-1 569-2 580-4 599-8 567-2 503-1 443-6 426-4 TURN DEGREE 48-97 44-26 41-50 37-33 33-08 34-58 37-73	FT/SEC 3 529.3 556.6 572.2 606.6 583.9 519.4 40.3 420.4 CAMBER 62.54 59.05 51.79 44.70 44.71 45.31	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   7463.9   443.4   426.4   SOLIDTY   2.1081   2.1081   2.1081   1.7532   1.5490   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1.3675   1	FT/SEC F 639-7 629-7 629-17 596-9 424-6 389-9 405-3 405-8 D-FAC C 5069 44051 44279 4279 45159	13.9 42.5 47.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1523 .1314 .0701	50.46 50.46 46.20 39.86 36.86 36.86 39.91 42.37 43.99 LOSS-P TOTAL F .0274 .0376 .0276 .0276 .0124	1.43 4.24 4.70 2.53 2.94 2.58 2.18 1.48 .43 LCSS-P ROFILE .0286 .020 .0224	DEGREE D -19.02 -15.62 -10.39 3.61 18.36 30.15 36.19 39.43 41.68 P02/51 .9625 .9594 .9799 .9905 .9822	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.49 59.40 61.27 MEGA-B E 0CK 00 .0000 .0000 .0000	T/SEC F 559.8 578.1 572.3 669.1 616.1 601.6 586.7 570.0 563.0 FF-4D S 00000 00000 00000 00000	T/SEC F 723.5 724.9 740.3 500.6 622.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8115 .7654 .7893 .8638 .9153	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .71165 .5774	T/SEC -465.5 -450.9 -461.8 -530.9 -535.4 -673.5 -728.1 -777.8 M-2 .4854 .4999 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949 .4949	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5273 .5490 .5516 .5339 .5139	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502 .7062 .7245 .7353 .7516 .7575
5 10 15 30 50 70 85 90 95 95 95 95 95 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE -51 -05 -2.74 -3.46	IN 18.580 19.110 19.710 21.660 26.800 25.900 25.900 270 INCM DEGREE 4.50 4.98 2.06 2.04 5.35 9.41 11.82	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0 598.3 DEV DEGREE 17.92 20.13 16.56 13.66 15.17 17.23	F / SEC 554-1 569-2 599-8 567-2 503-1 464-2 443-6 426-4 TURN DÉGREE 44-26 41-50 37-33 33-08 37-73 40-89	FT/SEC 3 529.6 526.2 5706.2 583.9 5106.7 440.3 420.4 420.4 CAMBER 62.5 59.5 51.79 44.31 45.31 45.93	FT/SEC   553.8   567.5   578.5   578.5   599.2   566.5   502.7   463.9   426.4   50LIDTY   2.1061   2.1061   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.1051   2.	FT/SEC F 639-7 629-7 629-17 596-9 424-6 3891-9 405-8 0-FAC C 5069 44651 44651 4479 4279 5159	T/SEC 1 13.9 42.5 147.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1203 .1314 .0701 .0386 .0693	50.46 50.46 48.50 39.86 36.01 36.89 42.37 43.99 LOSS-P TOTAL F .0266 .0376 .0200 .0124 .0385	1.43 4.24 4.70 2.53 2.94 2.53 2.94 1.48 .43 LCSS-F ROFILE .0286 .0376 .0200 .0124 .0255	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P015H .9625 .9517 .9799 .9862 .9801	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.49 59.40 61.27 MEGA-B E 0CK 0 0000 0000 0000 0000 0000	T/SEC F 559.8 578.1 569.1 616.1 601.6 586.7 570.0 563.0 FF-40 OTAL S .0000 .0000 .0000 .0000 .0000	T/SEC F 723.5 740.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8155 .7893 .8638 .9153 .8008	T/SEC F 182.4 155.7 -38.5 -193.9 -301.8 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465 .5740 .5249	T/SEC -465.5 -450.9 -461.8 -530.9 -535.4 -673.5 -728.1 -777.8 M-2 .4854 .4999 .4949 .4940 .3848	FT/SEC 457.2 473.5 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5273 .5490 .5516 .5339 .5139	Fï/SEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502 .7062 .7245 .7353 .7516 .7575
5 10 15 30 50 70 85 90 95 95 95 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .51 .71 .05 -2.74 -3.46 -75 25.23	IN 18.580 19.110 19.740 21.660 26.880 26.990 29.600 30.270 INCM DEGREE 4.50 4.96 4.38 2.06 2.04 5.35 9.41 11.82 13.57	FT/SEC 830.2 840.1 826.9 790.6 722.0 649.4 611.0 596.0 584.3 DEV DEGREC 20.13 16.56 13.66 17.17 17.19	F*/SEC 554-1 569-2 599-8 567-2 503-1 443-6 426-4 TURNE E48-97 44-96 41-50 37-33 34-98 34-98 43-56	FT/SEC 3 529.3 556.2 606.6 583.9 5168.7 440.3 420.4 CAMBER 62.54 57.05 51.79 44.71 45.93 46.74	FT/SEC   553.8   567.5   578.5   578.5   578.5   599.2   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.9 901.3 405.8 D-FAC C 5005 4051 .4125 .3299 .4779 .5159	T/SEC 1 13.9 42.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1314 .0701 .0366 .0993 .1167 .1335	DEGREE D 50.46 48.50 39.86 36.86 39.91 42.37 43.99 LOSS-P TOTAL P .0286 .0336 .0200 .0124 .0240 .0385 .0464	1.43 4.24 4.73 2.53 2.94 2.53 2.18 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P015H .9625 .9517 .9799 .9862 .9801	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 59.40 61.27 MEGA-B E 0CK 0000 0000 0000 0000 0000	T/SEC F 559.8 578.1 569.1 516.1 6016.7 570.0 563.0 FF-AD S 0TAL S 0000 0000 0000 0000 0000 0000 0000	T/SEC F 723.5 724.9.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8115 .7654 .8638 .9153 .8008 .7794 .7423	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465 .5774 .5400 .5249 .5123	T/SEC -465.5 -465.5 -461.8 -530.9 -530.9 -535.4 -728.0 -752.1 -777.8 M-2 .4854 .5290 .4999 .4904 .3848 .3688	FT/SEC 457.2 473.2 473.5 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5213 .5490 .53182 .5026 .4924	FYSEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M'-2 .6338 .6355 .6502 .7062 .7062 .7245 .7363 .7516 .7575 .7673
5 10 15 30 50 70 85 90 95 95 95 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .51 .71 .05 -2.74 -3.46 -75 25.23	IN 18.580 19.110 19.710 21.600 24.200 26.880 26.900 29.600 30.270 INCM DEGREE 4.50 4.58 2.06 2.04 5.35 9.41 11.82 13.57	FT/SEC 830.2 840.1 790.6 722.0 649.4 661.0 596.0 598.3 DEV DEGREC 17.9 20.23 20.13 16.56 13.66 15.75 17.19 16.75	F*/SEC 554-1 569-2 599-8 567-2 503-1 443-6 426-4 TURN DEGREE 44-26 41-50 37-33 33-08 34-56 37-73 40-89 43-56	FT/SEC 3 529.3 556.2 606.6 583.9 519.7 440.3 420.4 CAMBER 62.54 57.05 51.79 44.70 44.71 45.31 45.74	FT/SEC   553.8   567.5   578.5   578.5   578.5   599.2   566.5   502.7   443.4   426.4   50LIDTY   2.1295   1.2469   1.7532   1.3673   1.2556   1.2273   P02/	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.9 401.3 405.3 0-FAC C 54951 44779 5159 5509 EFF-AD	T/SEC 1 13.9 42.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1514 .0701 .0386 .0993 .1167 .1335 EFF-P	DEGREE D 50.46 48.50 39.86 36.86 39.91 42.37 43.99 LOSS-P TOTAL P .0286 .0336 .0200 .0124 .0240 .0385 .0464	1.43 4.24 4.73 2.53 2.94 2.53 2.18 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P015H .9625 .9517 .9799 .9862 .9801	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 59.40 61.27 MEGA-B E 0CK 0000 0000 0000 0000 0000	T/SEC F 559.8 578.1 569.1 516.1 6016.7 570.0 563.0 FF-AD S 0TAL S 0000 0000 0000 0000 0000 0000 0000	T/SEC F 723.5 724.9.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8115 .7654 .8638 .9153 .8008 .7794 .7423	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465 .5774 .5400 .5249 .5123	T/SEC -465.5 -450.8 -530.9 -595.4 -728.0 -752.1 -777.8 M-2 .4854 .5290 .4909 .4908 .3848 .3688	FT/SEC 457.2 473.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5213 .5273 .5490 .5516 .53182 .5026 .4924 LANT-1	FYSEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M1-2 .6338 .6355 .6502 .7062 .7245 .7363 .7516 .7575 .7573 SLANT-2
5 10 15 30 50 70 85 90 95 95 95 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .51 .71 .05 -2.74 -3.46 -75 25.23	IN 18.580 19.110 19.710 21.600 24.200 26.880 26.900 29.600 30.270 INCM DEGREE 4.50 4.58 2.06 2.04 5.35 9.41 11.82 13.57	FT/SEC 830.2 840.1 826.9 722.0 649.4 611.0 596.0 598.3 DEV DEGRE: 17.92 20.13 16.56 13.66 15.17 17.23 WCOK-1 5M/SEC	F*/SEC 554-1 569-2 599-8 567-2 503-1 443-6 426-4 TURNE E48-97 44-96 41-50 37-33 34-98 34-98 43-56	FT/SEC 3 529.3 556.2 606.6 583.9 519.7 440.3 420.4 CAMBER 62.54 57.05 51.79 44.70 44.71 45.31 45.74	FT/SEC   553.8   567.5   578.5   578.5   578.5   599.2   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5   566.5	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.9 901.3 405.8 D-FAC C 5005 4051 .4125 .3299 .4779 .5159	T/SEC 1 13.9 42.5 26.5 29.0 20.0 17.7 11.7 3.2 0MEGA-B .1205 .1314 .0701 .0366 .0993 .1167 .1335	DEGREE D 50.46 48.50 39.86 36.86 39.91 42.37 43.99 LOSS-P TOTAL P .0286 .0336 .0200 .0124 .0240 .0385 .0464	1.43 4.24 4.73 2.53 2.94 2.53 2.18 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P015H .9625 .9517 .9799 .9862 .9801	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 59.40 61.27 MEGA-B E 0CK 0000 0000 0000 0000 0000	T/SEC F 559.8 578.1 569.1 516.1 6016.7 570.0 563.0 FF-AD S 0TAL S 0000 0000 0000 0000 0000 0000 0000	T/SEC F 723.5 724.9.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8115 .7654 .8638 .9153 .8008 .7794 .7423	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465 .5774 .5400 .5249 .5123	T/SEC -465.5 -450.8 -530.9 -595.4 -728.0 -752.1 -777.8 M-2 .4854 .5290 .4909 .4908 .3848 .3688	FT/SEC 457.2 457.2 492.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5273 .5490 .55182 .5926 .4924 LANT-1 EGREE	FYSEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502 .7245 .7363 .7516 .7575 .7673 SLANT-2 DEGREE
5 10 15 30 50 70 85 90 95 95 95 90 95	IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE .51 .71 .05 -2.74 -3.46 -75 25.23	IN 18.580 19.110 19.710 21.600 24.200 26.880 26.900 29.600 30.270 INCM DEGREE 4.50 4.58 2.06 2.04 5.35 9.41 11.82 13.57	FT/SEC 830.2 840.1 826.9 799.6 722.0 649.4 611.0 596.0 596.0 594.3 DEWELT 17.92 20.2 20.1 16.56 13.66 13.66 17.19 16.75 wcok-1 6M/SEC	F / SEC 554-1 569-8 567-2 580-8 567-2 443-6 426-4 TURN DÉGREE 48-97 41-50 37-33 40-89 43-56 40-85 EC/A-1 LEM/SEC	FT/SEC 3 529.63 5572.2606.26 5572.2606.39 5168.73 4400.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4200.4 4	FT/SEC 553.8 567.5 578.5 599.2 566.5 503.9 443.4 426.4 SOLIDTY 2.1081 2.1081 2.1081 2.1081 1.7532 1.3475 1.2873 1.2873 1.22558 1.22/ PO1	FT/SEC F 639.7 629.7 629.7 596.9 424.6 389.9 401.3 405.3 0-FAC C 54951 44779 5159 5509 EFF-AD	13.9 42.5 26.5 29.0 20.0 20.0 17.7 3.2 MEGA-B .1205 .1523 .1314 .0781 .0386 .0668 .0993 .1167 .135 .135 .135 .135 .135 .135 .135 .135	DEGREE D 50.46 48.50 39.86 36.86 39.91 42.37 43.99 LOSS-P TOTAL P .0286 .0336 .0200 .0124 .0240 .0385 .0464	1.43 4.24 4.73 2.53 2.94 2.53 2.18 1.48 1.48 1.48 1.48 1.48 1.48 1.48 1	DEGREE D -19.02 -15.62 -10.39 18.36 30.15 36.98 39.43 41.68 P015H .9625 .9517 .9799 .9862 .9801	DEGREE F 40.05 30.47 30.60 41.53 40.42 53.25 57.49 59.40 61.27 MEGA-B E 0CK 0000 0000 0000 0000 0000	T/SEC F 559.8 578.1 569.1 516.1 6016.7 570.0 563.0 FF-AD S 0TAL S 0000 0000 0000 0000 0000 0000 0000	T/SEC F 723.5 724.9.3 800.6 822.0 840.7 863.4 873.3 887.1 EFF-P TATIC .8115 .7654 .8638 .9153 .8008 .7794 .7423	T/SEC F 182.4 155.7 104.7 -38.5 -193.9 -352.8 -361.7 -374.4 M-1 .7533 .7565 .7444 .7110 .6465 .5774 .5400 .5249 .5123	T/SEC -465.5 -450.8 -530.9 -595.4 -728.0 -752.1 -777.8 M-2 .4854 .5290 .4909 .4908 .3848 .3688	FT/SEC 457.2 473.1 545.5 618.5 691.2 744.7 763.0 780.3 M*-1 .5110 .5213 .5273 .5490 .5516 .53182 .5026 .4924 LANT-1	FYSEC 479.4 493.1 509.3 557.3 624.4 693.6 745.7 763.8 781.0 M*-2 .6338 .6355 .6502 .7245 .7363 .7516 .7575 .7673 SLANT-2 DEGREE

ROTOR

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# Blade-Element and Overall Performance with Stator-Hub Suction 80% of Design Speed

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90 29.32		., 535.9			.0	419.3	.00			45.46				-338.		
95 30.15	0 30.180 391.	.5 524.6	391.5	315.1	•0	419.5	•00	53.49	63.25	46.6	869.8	477.1	-776.7	7 -356.	1 7/6.	777.5
INCS	INCM CEV	T∪R:	CAMBER S	LISTY	C-FAC	OMEGA-E	LOSS-P	LOSS-P	P02/	EFF-P	EFF-AC G	MEGA-B	M=1	M-2	M!-1	M+-2
	LEGHLE LEGRE								P01 1		TOTAL SH		•••		•	
5 -5.6				2.4319	.2026	.2130			1.3165		.0749	.0000	. 4362	.817	3 .535	9 ,5709
10 -4.4			66.13	2.2838	,2544	1001	.0216		1.3455			.0000	.441	108, 2	8 .555;	2 .5564
15 -3.9		56.53	63.02	2.1554					1.3454			.0000	.4535			
30 -3.3				1.9026					1.3313			.0000	.4829			
50 -1.6		30 <b>،</b> 35 من		1.6901		0796			1.2965			•0000	.490			
70 4.7				1.5346					1.3217			.0000	4090			
85 8.7		be 20.14		1.4422					1.3396			.0000	352			
90 8.5		17.25							1.3352			.0000	.3534			
95 8.1	9 11.52 14.	49 14.61	17.51	1.3600	.6252	.1800	.0428	.0426	1.3305		.3118	.0000	. 355	.456	3 .790	4 .4149
	NCOR-1 WOOR	-1 WC/A-1	T02/	P02/	EFF-AD	EFF-P							STA-1 S	STA-2	SLANT-1	SLANT-2
	RPM LUM/SE	C_LBM/SEC	T01	201	%	%									DEGREE	DEGREE
		SUFT														
	5934 401.4	32.00	1.0907	1.3222	91.613	92.01							5.0	6.0	86.05	95.02
STATOR																
	214 2 1															
	DIA-2 V-1	V=2 , FT/SEC (	VM=1	VN-2	0-1	V(-2	8-1 056015 (	B-2	B+-1	81-2 5-695	1-1		V0 - 1		U-1	U-2
	IN FT/SEC 0 18.580 816.						51,03				543.9					
	0 19.110 826				625.0		49,13		-15.75			711.0		-449.6		
10100		1 563.0		560.8	492.2	50.0	46.75		-10.3u			724.4		-458		
	0 21.600 776						40.70	2.61	3.7:							
	0 24.200 708		•	549.9	.26.2	29.3	36.90	3.06						-594		
	0 26.580 638.			467.4	395.4		36,26	2.73						-669.		
	0 28.900 601			446.4	-03.3	16.4		2.10						-728.		
90 29.57	0 29.600 589			429.2		9.5		1.25				867.0	-348,5	-753.	761.8	762.6
95 30.24	0 <b>30.27</b> 0 580.	416.3	403.5	410.2	117.8	3.0		.41	41.83	61.51	541.7	881.3	-361.2	-776.6	779.1	779.6
1105	INCM DEV	7. 24	CAMBER S	ol toty	D. EAC /	NE: 40	1.055=0	Lece_P	2027	ME 64_0	EFF-AD	eEE_0	M-1	4-2	M1-1	M1-2
	DEGREE DEGREE			CEIDII	Derac .	UME JAMB		PRUFILE			TOTAL S	-	(m- T	4-2	M 1	m 2
5 1.1				2.1084	. 5189	.1407		0293		.0000		8095	.7401	.470	4958	.6230
10 [.3		34 44.71				.1556		0382		.0000		.7640				
15		3 41.65			4752			.0343		.0000		.7853				
36 -1.8				1.7537				0199		.0000		.8662				
50 -2.4				1.5493	4023	. 380		,0122		.0000		9168				
70 .6				1.3877	4455	.(709		.0255		.0000		.8532				
85 5.1			45.30	1.2873	5068	.1153	.0440	.0448	•980J	.0000		7809	.5304	.388	.4943	.7418
90 7.4		43.31			5443					.0000		.7532				
95 8.8	6 15.59 16.7	74 45.58	46.74	1.2273	.5742	.1537	• 0626	.0626	.9752	.0000	.0000	.7137			3 .4726	.7608
	NCOR-1 WOOR-	-: WC/A-1	702/	P02/	SEF-AD	EFF-P						,	STA-1 S	TA-2	SLANT-1	SLANT-2
	RPM LBM/SEC			P01	X	*									EGREE	
		SOFT												•		
	5004 1910	32.00	1.0907	1.2950	84.549	85,10							11.0	.2.0	90.00	90.00

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

ROTOR	muo manu and o	80% of Desig	gn Speed	Cuon
DIA-1 DIA-2 V-1  SPAN IN IN FT/5E,  5 13-120 16-030 460, 10 14-100 16-790 467, 15 15-170 17-580 +79, 30 18-280 19-910 510, 50 22-190 23-090 520, 70 25-880 26-260 436, 85 28-450 28-610 377, 90 29-320 29-410 373, 95 30-150 30-180 374,  INCS INCM DEV	C FT/SEC FT/SEC FT/SEC -4 695.6 460.4 542.7 -2 876.5 467.2 546.6 -3 847.3 479.3 553.6 -6 776.2 510.6 556.8 -2 675.2 520.2 508.3 -4 587.8 436.4 425.3 -3 543.5 377.5 358.3 -7 527.6 373.7 323.1 -5 514.8 374.8 303.0 TURN CAMBER SOLIDTY DEGREE DEGREE	V0-1 V0-2 B- FT/SEC FT/SEC DEGR -0 712-4 -0 685-1 -0 641-2 -0 540-6 -0 444-5 -0 405-7 -0 408-7 -0 416-6 -0 416-2  O-FAC OMEGA-B LOS	-1 B-2 B'-1 B'-2 V'-1 REE LEGRE, LEGREE DEGREE FT/LIC FT00 52.70 36.32 -28.84 571.4 600 51.41 37.89 -24.72 592.1 600 49.18 39.22 -18.72 618.8 600 44.32 42.70 -2.72 695.1 600 41.17 47.72 16.58 773.6 600 43.66 56.81 32.57 793.2 600 43.66 56.81 32.57 793.2 600 43.66 56.81 32.57 793.2 600 52.24 63.70 46.67 843.6 600 53.95 64.27 50.08 863.3 6. SS-P LCSS-P P02/ EFF-P EFF-AD MOTAL PROFILE F01 TOTAL TOTAL S.00	619.7 -338.4 298.9 338.4 413.5 669.2 -363.7 252.0 363.7 433.1 252.0 363.7 433.1 252.0 363.7 433.1 252.0 363.7 433.1 252.0 363.7 433.1 252.0 471.5 513.6 270.0 471.5 513.6 270.0 471.5 513.6 270.0 471.5 595.6 270.4 2667.6 271.7 667.6 677.4 2667.7 273.9 2329.3 733.9 738.0 470.9 -756.3 -342.0 756.3 758.6 472.4 -777.7 -362.3 777.7 778.5
10 -3.58 3.04 6.15 -3.08 3.17 6.2 30 -2.51 3.14 10.5 50 -7.79 4.17 11.5 70 5.73 9.94 12.1 85 9.67 13.35 12.5 90 9.54 13.03 14.2 95 9.21 12.54 15.5	42 24.24 26.92 1.5346 52 20.18 19.59 1.4422 33 17.03 18.27 1.4147	2583 .1561 .1329 .14087 .6649 .1071 .5335 .0857 .1229 .6166 .1736 .6	0310	.0000 .4202 .8160 .5231 .5646 .0000 .4283 .7961 .5452 .5470 .0000 .4464 .7672 .5711 .5298 .0000 .4669 .6978 .6413 .5025 .0000 .4756 .6012 .7113 .4727 .0000 .3941 .5180 .7265 .4454 .0000 .3382 .4752 .7498 .4255 .0000 .3386 .4596 .7674 .4103 .0000 .3395 .4475 .7837 .4107
RPM LBM/SEC 5911 1374	C LBM/SEC TO1 PO1 SQFT 9 31.13 1.0911 1.3143	% %		DEGREE DEGREE 5.0 6.3 86.05 95.02
	C FT/SEC FT/SEC FT/SEC 9 530.8 505.5 530.0 3 542.4 529.8 541.1 4 551.1 546.0 549.0 5 575.4 579.3 574.1 9 542.5 55**0 541.0 17 430.8 433.3 430.0 11 414.6 406.5 414.0	FT/SEC FT/SEC DEG 643.0 5.0 5 627.5 55.8 4 5 594.5 44.4 4 7 \$10.8 28.9 4 7 \$10.8 29.5 3 29.5 3 29.5 3 20.5 4 10.5 4 10.6 4	RÉE DEGREE DEGREE DEGREE FT/SEC FT 1.83 .53 -20.20 41.79 535.6 9.83 3.77 -16.23 40.19 552.0 7.43 4.63 -10.67 40.23 556.2 1.39 2.68 3.36 42.58 561.5 7.77 3.12 18.84 47.66 566.2 9.25 2.58 11.37 55.06 568.0 2.82 1.39 08.39 59.63 552.8 5.32 40.92 61.44 537.9	711.7 185.9 -474.2 457.1 479.3 708.4 154.2 -457.1 473.3 492.9 719.6 102.6 -464.8 491.9 509.2 780.7 -189.0 -594.7 618.3 624.2 852.0 -295.3 -672.2 691.1 693.4 745.5 867.6 -352.0 -761.9 762.8 763.5 885.6 -365.5 -789.1 780.0 780.8
INCS INCM DEV %SPAN DEGREE DEGREE DEGRE 5 1.91 5.90 17.			SS-P LOSS-P PO27 MEGA-BEFF-AD E Tal Prifile PO1 S OCK TOTAL ST	
10	34.65 44.66 1.549 4" 36.68 44.31 1.387 41.43 45.30 1.207 91 45.12 45.93 1.255	2 5315 1357 5 5 5129 1601 4888 4446 4 4307 815 4 1 4089 472 6 1 4089 472 6 1 5275 1452 5 1 5275 1615 6	0322     .0322     .9583     .0000     .6000       0394     .0394     .9511     .0000     .0000       0370     .0370     .9571     .0000     .0000       0232     .0232     .9776     .0000     .0000       0343     .0343     .9821     .0000     .0000       0343     .0343     .9821     .0000     .0000       0564     .9756     .0000     .0000       .0643     .0643     .9741     .0000     .0000	.7982 .7390 .4640 .4895 .6222 .7616 .7376 .4745 .4970 .61 7 .7760 .7252 .4829 .5023 .6305 .8466 .6930 .5063 .5227 .6869 .8978 .6258 .4769 .5233 .7074 .6073 .5545 .41(1 .5025 .7160 .7298 .5204 .3738 .4869 .7392 .7119 .5078 .3586 .4731 .7504 .6826 .4969 .3469 .4651 .7641 .874-1 STA-2 .5LANT-2 .0EGREE .0EGREE

### Blade-Element and Overall Performance with Stator-Hub Slit Suction

			Biac	ie-rite	ment a	ina Ov	eran	Perior	mance	with	Stator	-Hub :	ont Su	ction				
ROT	'OR						90%	of Des	ign Sp	eed								
	31A-1	DIA-2	V-1	V-2	V W-1	y + .2	vc-1	v .=2	J=1	3-2	81-1	3*=2	V*-1	v+-2	vn*-1	V02	J+1	y-2
% SPAN	IN	IN	FT/SEC			FT/SEC	FT/SEC	FTZSEC	DEGREE .	JEGHEE S	EGREE	DEGREE F	TISEC	FT/SEC	FTZSEC	FT/SEC	FT/SEC	FT/SEC
5	13.12	15. 3	561.	1023.	561.3	541.1	,		.00	51.19	34.07	-27.44	678.2	722.5	-379	33. •		
10		16.79		1006.7						50.20	34.97	-24. 1	712.3		-408.			
15		17.58	599.6		599.6			723,8		47.98		-18,2	743.3		-439.3			5(9.
30		19.91	632.8				• 7		•U0	42.63	39.89		825.		-529.4			
50 70		23. 9	547.7				• •	493.4	• 40	39.37	44.76		912.6			-:75.		
70 85		26.26 28.61	559.2 493.6						0	41.07	53.26 59.07		935,8			-313,6		
90		29.41	488.6					44.17.4		47.99	60.08		960.6 979.6			-385.6 -460.6		
95		3: 19	490 . 1			381.9		41.0	•00		60.69	47.84	1001.2	569.2	-873.1	-421.9	873.1	
	-																	
W LOAN	INCS	INCM	DEV			SOLIDTY	D-FAC	OMEGA-B	1.05 <b>5-</b> P	LOSS-P	P02/	EFF-P'E	FF-40	OMEGA-E	M-1	M-2	M'-1	м*-2
<u>% SPAN</u> 5				DEGREE					TOTAL	ROFILE	POL	TOTAL	OTAL S					
10	-6.93 -6.55		7 9.59 7.17			2.4324			0394		1.4093		.8670	•0000				•
15	-6.07					2.2032	.3177		.03u7		1.4338		.8983 .9190	•0000				
30	-5.3	.37	11.53			1.9,49			.0133		1.4226		.95_6	• 0000				.626
50	-3.82					1.6914	4753		.0219		1.3809		.9127					.559
70	1.93				26.9	1.5352	.513r	298	0083		1.4192		9647	•0000				530
85	5.86	9.5		18.17	19.67	1,4423		. 426	•0112		1.4511		.9525					
90	5.93					1.4148	.5747	• ¿974	10245		1.4424		.894	-0000		.5276	.8969	. 496
25	5.65	8,99	13.68	12.86	17.51	1.3886	.5942	,1344	•0325	.0325	1.4326	.8599	-85≥6	-0000	,4476	-5;23	9156	.492
		vic Op	#C00-4	WC/A-1	T00/	0007	CPE-10	CEE-0										
				L3M/SEC		P02/ P01		EFF-P							214-1 5		LANT-1	
				Saft											*	.4	EGSFE	EGNEE
		6637	165.1	37.29	1.1130	1.4148	92.245	92.70							5.0	6.0	85.05	95.02
CUTTA	m\n																	
STA	TOR																	
	DI 4-1	DIA-2	V-1	v <b>-</b> 2	A4-1	7M-2	v0 <b>-1</b>	V <b>⊕-2</b>	8-1	3-2	9*-1	8 <b>'-</b> 2	V*~1		vo*-1	VU!-2	U <b>-1</b>	:j=2
% SPAN	DIA-1 IN	IN	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGSEF (	EGREE C	EGREE	DEGREE F	T/SEC I	FT/SEC	FT/SEC	V0 -2 FT/SEC	FT/SEC	FT/SEC
<u>% SPAN</u> 5	DIA-1 IN 17.720	IN 18.58	FT/5EC 932.0	FT/SEC 604.0	FT/SEC 593.2	FT/SEC 6u3.7	FT/SEC 718.3	FT/SEC	DEGREE (	EGREE 36	EGREE -19.12	DEGREE F	1/SEC	FT/SEC 801.9	FT/SEC	VU!-2 FT/SEC 7 -527.7	FT/SEC 513.2	FT/SEC 538.
% SPAN 5 10	DIA-1 IN 17.720 18.350	IN 18.58 19.11	FT/SEC 932.0	604.0 621.2	593.2 621.1	FT/SEC 6J3•7 619•6	FT/SEC 718.3 768.4	FT/SEC 10.3 43.0	50.47 50.47 48.76	EGREE 3.96 3.96	EGREE -19.12 -15.91	DEGREE # 41.16 39.48	627.8 646.0	FT/SEC 801.9 802.8	205. 277.	VU!-2 FT/SEC / -527.7	FT/SEC 7 513.2 5 531.4	538. 538.
% SPAN 5 10 15	DIA-1 IN 17.720 18.350 19.070	IN 18.58 19.11 19.74	FT/SEC 932.0 942.1 929.3	604.0 621.2 634.9	FT/SEC 593.2 621.1 642.5	FT/SEC 6u3.7 619.6 632.6	FT/SEC 718.3 708.4 671.	FT/SEC 10.3 43.0 52.7	0EGREE ( 50.47 48.76 46.23	.96 3.96 4.76	-19.12 -15.91 -16.50	DEGREE # 41.16 39.48 39.36	7/SEC   627.8 646.3 654.2	FT/SEC 801.9 802.8 818.3	FT/SEC 205. 177.0 118.	V01-2 FT/SEC 7 -527-1 0 -510-4 7 -519-0	FT/SEC / 513.2   531.4   552.2	538. 538. 553. 571.
% SPAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.140	IN 18.58 19.11 19.74 21.60	932.0 932.0 942.1 929.1	621.2 634.9 659.8	593.2 593.2 621.1 642.5 681.	FT/SEC 6J3.7 619.6 632.6 658.3	FT/SEC 718.3 708.4 671. 568.7	FT/SEC 10.3 43.0 52.7 25.9	DEGREE ( 50.47 48.76 46,23 39.84	96 3.96 4.76 2.26	EGREE -19.12 -15.91 -16.50 3.63	DEGREE # 41.16 39.48 39.36 42.31	627.8 646.0 654.2 683.8	FT/SEC 801.9 802.8 818.3 890.5	FT/SEC 205. 177.0 118.7 -43.5	V01-2 FT/SEC 7 -527-1 0 -510-4 7 -519-6 5 -599-6	FT/SEC / 513.2 / 531.4 / 552.2 / 612.2	538. 538. 553. 571. 625.
% SPAN 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	IN 18.58 19.11 19.74 21.60 24.20	FT/SEC 932.0 942.1 929.3 887.5 813.3	621.2 634.9 659.8 629.2	593.2 593.2 621.1 642.5 681. 659.3	FT/SEC 6u3.7 619.6 632.6 638.3 627.5	718.3 708.4 671. 568.7 476.1	FT/SEC 10.3 43.0 52.7 25.9 29.2	DEGREE ( 50.47 48.76 46,23 39.84 35.82	.96 3.96 4.76 2.26 2.67	EGREE -19.12 -15.91 -16.50 3.63 18.31	DEGREE # 41.16 39.48 39.36 42.31 46.94	T/SEC (627.8 627.8 646.3 654.2 683.8 695.5	FT/SEC 801.9 802.8 818.3 890.5 919.3	FT/SEC 205- 177-0 118-1 -43-5	VU*-2 FT/SEC 7 -527.1 0 -510.4 7 -519.6 5 -599.6	FT/SEC / 513.2 531.4 552.2 612.2 694.1	FT/SEC 538.; 553.6 571.6 625.; 70%.6
% SPAN 5 10 15 30 50	DIA-1 17.720 18.350 19.070 21.140 23.970 56.790	IN 18.58 19.11 19.74 21.60	932.0 942.1 929.3 887.5 813.3 733.1	604.0 621.2 634.9 658.8 629.2 553.9	593.2 593.2 621.1 642.5 681. 659.3 589.1	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4	FT/SEC 718.8 708.4 671.5 568.7 476.1 436.3	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0	DEGREE ( 50.47 48.76 46,23 ,39.84 35.82 36.53	96 3.96 4.76 2.26	EGREE -19.12 -15.91 -16.50 3.63	DEGREE # 41.16 39.48 39.36 42.31 46.94 53.51	627.8 646.0 654.2 683.8	FT/SEC 801.9 802.8 818.3 890.5 919.3 939.7	FT/SEC 205.177.0 118.7 -43.5 -218.0	V0'-2 FT/SEC 7 -527.1 0 -510.4 7 -519.6 6 -599.6 9 -671.6	FT/SEC 7 513.2 5 531.4 5 552.2 6 12.2 6 694.1 775.8	FT/SEC 538.: 553.6 571.6 625.! 70%.6 778.6
% SPAN 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60	932.0 942.1 929.3 887.3 813.3 733.1 693.1	604.0 621.2 634.9 659.8 629.2 553.9	593.2 593.2 621.1 642.5 681. 659.3 589.1	FT/SEC 6u3-7 619-6 632-6 658-3 627-5 558-4 520-2	718.8 708.4 671. 568.7 476.1 436.3	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3	0EGREE ( 50.47 48.76 46.23 39.84 35.82 36.33	1EGREE 3.96 3.96 4.76 2.26 2.67 2.35	EGREE -19.12 -15.91 -16.50 3.63 .8.31 29.96	DEGREE # 41.16 39.48 39.36 42.31 46.94 53.51 57.69	T/SEC 627.8 646.3 654.2 683.8 695.5 680.6	FT/SEC 801.9 802.8 618.3 890.5 919.3 939.7	FT/SEC 205.177.0 118.7 -43.5 -218.0 -339.1	VU*-2 FT/SEC 7 -527.1 0 -510.4 7 -519.6 5 -599.6	FT/SEC 7 513.2 5 531.4 5 552.2 6 12.2 6 694.1 775.8 8 835.8	FT/SEC 538.: 553.0 571.0 625.: 70%.0 778.0
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.58 19.11 19.74 21.60 24.20 26.88	932.0 942.1 929.3 887.3 813.3 733.1 693.1	604.0 621.2 634.9 659.9 629.2 553.9 520.4 500.1	593.2 593.2 621.1 642.5 681. 659.3 589.1	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2	FT/SEC 718.8 708.4 671.5 568.7 476.1 436.3 435.9	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8	0EGREE ( 50.47 48.76 46.23 39.84 35.82 36.53 38.99 41.12	1EGREE 3.96 3.96 4.76 2.26 2.67 2.35 1.58	-19.12 -19.12 -15.91 -10.50 -3.63 -8.31 -29.96 -36.59 -36.59	DEGREE # 41.16 39.48 39.36 42.31 46.94 53.51 57.69 59.48	7/SEC 627.8 646.0 654.2 683.8 695.5 680.6 671.1 655.5	FT/SEC 801.9 802.8 818.3 890.5 919.3 939.7 973.4 985.0	FT/SEG 205.177.0 118.1 -43.5 -218.0 -339.1 -411.1	V0+-2 FT/SEC 7 -527-1 7 -519-0 6 -599-6 8 -671-6 9 -755-6	FT/SEC 7 513.2 5131.4 552.2 612.2 694.1 775.8 835.8 856.3	FT/SEC 538. 555. 571. 625. 707. 836. 857.
% SPAN 5 10 15 30 50 70 85 90	DIA-1 17.720 18.350 19.070 21.140 23.970 28.867 29.570 30.243	IN 18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60 30.27	932.0 932.0 942.1 929.3 897.5 813.3 733.1 693.1 665.0	FT/SEC 604-0 621-2 634-8 658-8 628-2 553-9 520-4 500-1 483-2	FT/SEC 593.2 621.1 642.5 681 659.3 589.1 538.3 5489.1	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2 500.2	FT/SEC 718.8 708.4 671.2 568.7 476.1 436.3 435.9 4450.5	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8	0E67EL ( 50.47 48.76 46.23 39.84 35.82 36.53 38.99 41.12 42.64	96 3.96 4.76 2.26 2.67 2.35 1.58	-19.12 -15.91 -15.90 -16.50 -16.50 -16.50 -16.59 -16.59 -16.59 -16.59	DEGREE 6 41.16 39.48 39.36 42.31 46.94 53.51 57.69 59.48 61.13	T/SEC 627.8 646.3 654.2 683.8 695.5 680.6 671.1 658.2	FT/SEC 801.9 802.8 618.3 890.5 919.3 939.7 973.4 985.0	FT/SEC 205. 177.0 118.7 -43.5 -218.0 -339.5 -399.5 +411.1	V0'-2 FT/SEC 7 -527.7 7 -519.6 6 -599.6 6 -671.6 9 -755.6 8 -848.6 6 -846.6	FT/SEC 7 513.2 9 531.4 9 552.2 9 612.2 9 694.1 9 775.8 9 835.8 8 856.3	FT/SEC 538. 553. 571. 625. 707. 778. 836. 857.
% SPAN 5 10 15 30 50 70 85 90 90	DIA-1 17.720 18.350 19.070 23.970 23.970 26.790 28.860 29.570 30.243	IN 18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60 30.27 INCM	FT/SEC 932-0 942-1 942-1 887-5 813-3 733-1 693-1 677-5 665-0	FT/SEC 604-0 621-2 634-9 659-8 629-2 553-9 520-4 500-1 483-0	FT/SEC 593.2 621.1 642.5 681 659.3 589.1 538.3 510.3 489.1	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2 500.2	FT/SEC 718.8 708.4 671.2 568.7 476.1 436.3 435.9 4450.5	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8	50.47 48.76 48.76 29.84 35.82 36.53 38.99 41.12 42.64	3.96 4.76 2.26 2.67 2.35 1.58 .99	-19.12 -15.91 -15.91 -16.50 3.63 18.31 29.96 36.59 38.80 18.00	DEGREE 6 41.16 39.48 39.36 42.31 55.51 57.69 59.48 61.13 OMEGA-9	T/SEC 627.8 646.3 654.2 683.8 695.5 680.6 671.1 658.2	F.T/SEC 801.9 802.8 818.3 890.5 919.3 939.7 973.4 1000.4	FT/SEG 205.177.0 118.1 -43.5 -218.0 -339.1 -411.1	V0+-2 FT/SEC 7 -527-1 0 -519-0 5 -599-6 5 -571-6 0 -755-6 1 -848-6	FT/SEC 7 513.2 5131.4 552.2 612.2 694.1 775.8 835.8 856.3	FT/SEC 538. 555. 571. 625. 707. 836. 857.
% SPAN 5 10 15 30 50 70 85 90 90	DIA-1 17.720 18.350 21.140 23.970 26.790 28.860 29.570 30.243 INCS DEGREE	IN 18.58 19.11 19.74 21.60 26.88 28.90 29.60 30.27 INCM DESREE	932.0 932.0 942.1 929.3 887.5 813.3 733.1 693.1 677.5 665.0 0EV	FT/SEC 604-0 621-2 634-9 659-8 629-2 553-9 520-4 500-1 483-0 TURN DEGREE	FT/SEC 593.2 621.1 642.5 681.3 589.1 538.9 510.3 489.1 CAMBER DEGREE	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2 500.6 483.6	718.3 708.4 671.7 568.7 476.3 436.3 435.9 443.2 450.5	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8	50.47 48.76 48.76 39.84 35.82 36.53 38.99 41.12 42.64 LOSS-P	3.96 4.76 2.26 2.35 1.58 .99 .07 LOSS-P	EGREE 2 - 19-12 - 15-91 - 16-50 3-631 29-96 36-59 38-87 41-00 P01 S	DEGREE 41.16 39.48 39.36 42.31 46.94 53.51 57.69 59.48 61.13 0MEGA-98	627.8 646.3 654.2 683.5 680.6 671.1 655.5 648.2	FT/SEC 9 801.9 802.8 818.3 890.5 919.5 939.7 973.4 1000.4 EFF-P STATIC	FT/SEC 2(15) 177-(1 118-1 -43-( -339-( -339-( -411-1 -425-( M-1	V0+-2 FT/SEC 7 -527.7 7 -519.6 5 -599.6 7 -671.6 7 -755.6 7 -848.6 7 -848.6	FT/SEC 7 513.2 513.4 552.2 6912.2 6912.2 775.8 835.8 856.3 875.7	FT/SEC 538. 555. 571. 625. 707. 836. 857. 876.
% SPAN 5 10 15 30 50 70 85 90 90	DIA-1 17.720 18.350 19.070 23.970 23.970 26.790 28.860 29.570 30.243	18.58 19.11 19.74 21.60 24.20 25.88 28.90 29.60 30.27 1NCM DESREE	932.0 932.0 942.1 887.5 813.3 733.1 693.1 693.1 673.5 665.0 DEV	FT/SEC 604-0 621-2 634-9 659-8 629-2 534-9 520-4 500-1 483-0 TURN DEGREE 49-51	FT/SEC 593.2 621.1 642.5 681.3 589.1 538.3 510.3 489.1 CAMBER DEGREE 62.54	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2 500.6 483.6 SOLIDTY	FT/SEC 718.3 708.4 671.5 568.7 436.3 435.9 445.2 450.5 D-FAC	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 0MEGA-8	0567EL ( 50.47 48.76 46,23 39.84 35.82 36.53 38.99 41.12 42.64 LOSS-9 TOTAL (	96 3.96 4.76 2.67 2.35 1.58 9.07 LOSS-P ROFILE	EGREE 2 -19-12-2 -15-91 -16-53 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59 -16-59	DEGREE 6 41.16 39.48 39.36 42.31 46.94 53.51 57.69 59.48 61.13  DMEGA-98 HOCK -0000	7/SEC 627.8 646.3 654.2 683.8 680.6 671.1 655.5 648.2 FF-AD OTAL	FT/SEC 801.9 802.8 818.3 890.5 9139.7 973.4 1000.4 EFF-P STATIC 8193	FT/SEC 205. 177.0 118.7 -43.5 -218.5 -339.5 -399.5 -411.1 -425.3 M-1	V0'-2 FT/SEC 7 -527. 0 -510. 0 -599. 0 -599. 0 -755. 0 -755. 0 -755. 0 -848. 0 -876. 0 -876. 0 -876.	FT/SEC 7 513.2 5 513.2 5 52.2 6 612.2 6 694.1 6 755.8 8 856.3 875.7 M'-1	FT/SEC 538. 553. 571. 625. 707. 836. 857. 876. 4*=2
% SPAN 5 10 15 30 50 70 85 90 90	DIA-1 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.243 INCS DEGREE .69	IN 18.58 19.11 19.11 21.60 24.20 26.88 28.90 30.27 INCM DESREE 5.1	932.0 932.0 942.1 897.2 813.3 733.1 693.1 677.0 665.0 0EV JEGREE 19.92	FT/SEC 604-0 621-2 634-9 658-8 628-2 553-9 520-4 483-2 TURN DEGREE 49-51 44-80	FT/S20 593.2 621.1 642.5 681. 659.3 589.1 538.3 5489.1 CAMBER DEGREE 62.54 59.59	FT/SEC 6u3.7 619.6 638.6 627.5 558.4 520.2 500.6 483.6 SOLIDTY	FT/SEC 718.8 708.4 671. 568.7 476.1 436.3 435.9 445.5 0-FAC .5278	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-0	DECTEL ( 50.47 48.76 46.23 39.84 35.82 35.82 41.12 42.64 LOSS-P TOTAL ( 0297 0389	3.96 4.76 2.26 2.35 1.58 .99 .07 LOSS-P	EGREE 2 - 19-12 - 15-91 - 16-50 3-631 29-96 36-59 38-87 41-00 P01 S	DEGREE 6 41.16 39.48 39.36 42.31 46.94 53.51 57.69 64.13 0MEGA-98 100K 0000 0000	T/SEC 627.8 646.3 654.8 695.5 680.6 671.1 655.5 648.2 FF-AD •00J0	FT/SEC 801.9 802.8 818.3 890.3 919.3 939.7 985.4 1000.4 EFF-P STATIC .7766	FT/SEC 205-177-0 118-1 -48-1 -218-0 -218-0 -339-0 -425-0 M-1 -8460 -8500	V01-2 FT/SEC 7 -527.7 -510.4 7 -519.6 6 -599.6 6 -755.4 6 -822.4 1 -848.4 6 -876.0 M-2 7 .525.5	FT/SEC 7 513.2 5 531.4 5 52.2 6 612.2 6 694.1 775.8 8 856.3 875.7 M-1 .5854	FT/SEC 538. 553. 571. 625. 707. 778. 857. 876. 47-2 .698
% SPAN 5 10 15 30 50 70 85 90 90 90 5 10 15	DIA-1 17.720 18.350 21.140 23.970 26.790 29.570 30.243 INCS DEGREE .69 .89 .61 -2.79	IN 18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60 30.27 IN(M DESREE 4.66 5.11 4.33 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5 2.5	FT/SEQ 932-0 932-0 949-1 897-1 897-1 897-1 677-5 665-0 0EV JEGREE 17-46 5 19-9 5 19-9 5 20-23	FT/SEC 604-0 624-2 634-9 659-8 629-2 520-4 500-1 483-2 TURN DEGREE 49-51 44-87	FT/S20 593-2 621-1 642-5 681- 659-3 538-3 510-3 489-1 CAMBER DEGREE 62-54 59-59	FT/SEC 6u3.7 619.6 632.6 658.3 627.5 558.4 520.2 500.6 483.6 SOLIDTY	718-8 718-8 768-4 671-2 568-7 476-1 435-9 443-2 450-5 0-FAC	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-8 .1254 .1582 .1418 .753	DECTEL ( 50.47 48.76 46.23 39.84 35.82 35.82 41.12 42.64 LOSS-P TOTAL ( 0297 0389	2.67 2.67 2.67 2.35 1.58 9.97 LOSS-P ROFILE 0297 .0389 .0215	EGREE 2 -19-12 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -15-50 -	DEGREE 6 41.16 39.48 39.48 42.31 46.94 53.69 59.48 61.13 0MEGA-98 HOCK 0000 .0000	7/SEC 627.8 646.3 654.2 683.8 680.6 671.1 655.5 648.2 FF-AD OTAL	FT/SEC 801.9 8018.3 8190.5 919.3 9373.4 985.0 1000.4 EFF-IC .8175 .7929	FT/SEC 205. 1778. 1778. 178. -437. -218. -339. -399. -411. -425. M-1 .8506 .838	V01-2 FT/SEC 7 -527.0 -510.4 7 -519.6 5 -599.6 6 -671.6 6 -822.6 1 -848.6 6 -826.6 M-2 7 .525.6 M-2 8 .5401	FT/SEC 7 513-2 513-2 552-2 612-2 694-1 775-8 8 856-3 875-7 M1 57 5854 5940	FT/SEC 538. 553. 571. 625. 707. 778. 836. 857. 876. 476. 698.
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 29.140 23.970 28.860 29.570 30.243 INCS DEGREE -69 -89 -2.76	IN 18.58 19.11 19.74 21.60 22.68 22.60 30.27 INUM DESREE 5.11 4.32 2.68 3.60 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.66 3.60 4.60 4.60 4.60 4.60 4.60 4.60 4.60 4	FT/SEQ 932-0 942-1 942-1 897-1 897-1 693-1 677-5 665-0 05V DEGREE 17-46 19-92 21-23 16-26 13-41	FT/SEC 604-0 621-0 634-9 659-8 629-0 520-4 500-1 433-0 TURN FEGREE 49-51 44-87 737-58 33-15	FT/SEC S93.2 621.1 642.6 681 659.3 589.1 538.9 510.3 489.1 CAUGEE 62.54 59.59 57.69 57.69 54.73	FT/SEC 6y3-7 619-6 632-6 658-3 627-5 520-2 500-0 483-6 SOLIDTY 2.1077 2.0289 1.7526 1.5486	FT/SEC 718.3 768.4 671.4 568.7 436.3 435.9 443.2 450.5 D-FAC .5278 .5100 .4842 .4299 .4039	FT/SEC 10-3 43-0 52-7 25-9 29-2 23-0 14-3 8-8 0MEGA-0 -1254 -1582 -14-18 -75-3 -75-3 -75-3	DECTEL ( 50.47 48.76 46.23 39.84 35.82 36.53 38.99 41.12 42.64 LOSS-9 TOTAL ( 0297 0389 0363 0215	2.26 3.96 4.76 2.26 2.67 2.35 1.58 .99 0.7 LOSS-P ROFILE .0297 .0389 .0133	DEGREE 19.12 -19.12 -16.50 3.63 18.31 28.63 36.59 38.87 41.00 P02/Si.94 94.01 94.01 94.01 94.01 94.01 94.01 94.01	DEGREE 6 41.16 39.36 42.31 46.91 57.69 59.48 61.13 0MEGA-96 HOCK 0000 .0000 .0000	FT/SEC 8 627.8 646.3 654.2 653.8 695.5 680.6 671.1 655.5 FF-AD OTAL U .0000 .0000	FT/SEC 801.9 802.8 8018.3 890.5 919.3 973.4 985.0 1000.4 EFF-IC .8145 .7766 .7929 .8673 .9158	FT/SEC 2u5. 177. 118. -43. -218. -339. -411. -425. M-1 .850. .850. .838. .727	V01-2 FT/SEC 7 -527.0 0 -510.4 5 -599.6 6 -599.6 7 -671.6 7 -752.6 8 -848.6 8 -876.0 M-2 7 .525.0 9 .5540.0 9 .578.0	FT/SEC 2 513.2 2 513.2 2 612.2 612.2 612.2 6 694.1 6 835.8 8 875.7 M·-1 5 5854 9 5947 4 6228	FT/SEC 538. 553. 571. 625. 707. 836. 876. M*-2 .698. .7141. .866.
% SPAN 5 10 15 30 50 70 85 90 95 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	DIA-1 IN 17.720 18.350 19.070 21.140 23.6.790 28.860 29.570 30.240 INCS DEGREE -699 -2.796 -1.05	IN 18.58 19.11 19.74 21.60 24.20 26.88 28.90 29.60 30.27 INCM DESREE 4.00 5.1 8.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5 5.5	FT/SEQ 932-0 932-0 949-1 897-1 897-1 677-5 665-0 0EV JEGREE 17-46 14-20 16-20 16-20 15-41	FT/SEC 604-0 634-9 634-9 658-8 658-8 520-4 500-1 483-2 TURN DEGRES 49-51 44-47 37-58 33-15 34-18	FT/SEC S93.2 621.1 642.5 681.7 681.7 659.3 589.1 538.9 510.3 489.1 CAMBER DEGREE 62.54 59.59 57.63 54.73 44.73	FT/SEC 6y3-7 619-6 632-6 658-3 627-5 520-2 500-0 483-0 SOLIDTY 2,1077 2,10289 1,9463 1,7526 1,5486 1,3872	FT/SEC 718.3 708.4 671.1 568.7 476.1 436.3 445.2 450.5 0-FAC .5279 .4299 .4299 .4299	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-8 .1254 .1582 .1418 .753 .2418 .2418	DESTEL ( 50.47 48.76 46.23 39.84 35.82 36.53 38.99 41.12 42.64 LOSS-9 TOTAL ( 0.237 0.215 0.123	2.67 2.65 2.67 2.67 2.67 2.67 2.67 2.67 2.67 2.67	DEGREE 19.191 -15.191 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 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-15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503 -15.503	DEGREE   41.16   39.36   42.31   46.94   57.69   59.48   61.13   0MEGA = 9.4000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.000   0.00	FT-AD	FT/SEC 801.9 802.8 8018.3 890.5 919.3 939.7 973.4 985.0 1000.4 EFF-P STATIC .8193 .7766 .7929 .8673 .9156 .8591	FT/SEC 205. 177. 118. -43. -218. -339. -411. -425. M-1 .856. .838. .798. .798.	V01-2 FT/SEC 7 -527.10.4 7 -519.6 6 -599.6 6 -671.6 6 -822.6 1 -848.4 6 -825.6 1 -848.4 6 -825.6 1 -848.4 6 -825.6 1 -855.4 6 -825.6 1 -855.4 6 -855.6 6 -555.4 6 -555.4 7 -555.4	FT/SEC 513.2 513.2 512.2 612.2 694.1 6835.8 835.8 875.7 M'-1 5940 61748 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60228 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60288 60	FT/SEC 538. 5538. 571. 625. 707. 778. 836. 857. 876. M*-2 .698. .714. .789. .818.
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% SPAN 5 10 15 30 50 70 85 90 90 \$ \$ \$ 10 15 30 50 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA-1 IN 17-720 18-350 21-140 23-970 28-860 29-570 30-243 INCS DEGREE -69 -89 -1-95 2-66	IN 18-58 19-11 19-74 21-60 24-20 26-88 28-90 29-60 30-27 IN(M DESREE 4-56 5-11-8-5 6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5	FT/SEQ 932-0 949-3 897-3 813-3 733-1 677-5 665-0 DEV JEGREE 5 17-46 5 19-23 2 16-26 5 13-41 16-63 16-63	FT/SEC 604-0 621-2 634-9 629-2 530-4 500-1 433-2 TURN SEGRES 49-51 44-87 731-58 73-15 74-18 70-14	FT/SEC 593.2 621.1 642.5 659.3 558.3 510.3 489.1 CAMBER DEGREE 62.54 59.59 57.63 44.73 44.32 45.94	FT/SEC 6J3-7 613-6 632-6 658-3 627-5 558-4 520-2 500-0 483-0 50LIDTY 2.1077 2.0289 1.9463 1.7526 1.5486 1.3872 1.2871	FT/SEC 718.3 708.4 671.4 671.4 476.1 436.3 435.9 443.2 450.5 D-FAC .5279 .5100 .4842 .4299 .4299 .4494 .4853 .5183	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-8 .1582 .1418 .753 .0412 .0412 .1000 .113(	0667EL ( 50.47 48.76 46.23 59.84 35.82 36.59 41.12 42.64  LOSS-P TOTAL ( 0297 0389 0215 01133 0249 0388	2-66 3-76 3-76 2-67 2-67 2-358 9-97 LOSS-P ROFILE 0299 -0389 -0215 -0139 -0350 -0450	DEGREE 121-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	DEGREE 6 41.16 39.48 42.31 46.94 53.56 57.69 59.48 61.13 0MEGA - 9 0000 0000 0000 0000 0000	627.8 644.2 654.8 654.8 695.6 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1	FT/SEC 801.9 801.8 801.8 818.3 890.5 919.3 737.4 985.0 1000.4 EFF-P STATIC .77629 .8673 .9158 .8591 .8066 .7933	FT/SEC, 205. 177. 205. 11843218399411425. 346. 8388. 7987276504. 5943	V01-2 FT/SEC 7 -527.1 0 -510.4 5 -599.5 5 -599.5 7 -671.6 7 -752.6 1 -848.4 0 -876.0 M-2 7 .525.0 1 .5540.1 1 .578.3 1 .578.3 1 .578.3 1 .446.0 1 .446.0	FT/SEC 7 513-2 7 513-2 7 513-2 8 552-2 6 612-2 6 694-8 8 755-8 8 875-7 8 -58540 6 6228 6 6228 6 6228 7 6974 8 636-3 8 75-7	FT/SEC 538. 5538. 571. 625. 709. 836. 837. 876. 4* -2 .698. .714. .206. .813. .843. .843.
% SPAN 5 10 15 30 50 70 85 90 90 90 5 10 15 30 50 70 85	DIA-1 IN 17-720 18-350 19-070 21-140 23-970 28-860 29-570 30-243 INCS DEGREE -69 -89 -101 -2-79 -3-66 -1-95 -2-77	IN 18-58 19-11 19-74 21-60 24-20 26-88 28-90 29-60 30-27 IN(M DESREE 4-56 5-11-8-5 6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5 11-6-5	FT/SEQ 932-0 949-3 897-3 813-3 733-1 677-5 665-0 0EV JEGREE 5 17-46 5 13-41 16-23 16-23 16-24 16-24 16-25 16-25	FT/SEC 604-0 621-2 634-9 629-2 530-4 500-1 433-2 TURN SEGRES 49-51 44-87 731-58 73-15 74-18 70-14	FT/SEC 593.2 621.1 642.5 659.3 558.3 510.3 489.1 CAMBER DEGREE 62.54 59.59 57.63 44.73 44.32 45.94	FT/SEC 6y3-7 619-6 632-6 658-3 627-5 528-4 520-2 500-0 483-0 SOLIDTY 2.1077 2.0289 1.7526 1.5486 1.3872 1.2871	FT/SEC 718.3 708.4 671.4 671.4 476.1 436.3 435.9 443.2 450.5 D-FAC .5279 .5100 .4842 .4299 .4299 .4494 .4853 .5183	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-8 .1582 .1418 .753 .0412 .0412 .1000 .113(	DESTEL ( 50.47 48.76 46.23 39.84 35.82 42.64 LOSS-P TOTAL ( 0.297 0.249 0.349 0.349	056 056 056 056 056 056 056 056 056 056	DEGREE 19-19-19-19-19-19-19-19-19-19-19-19-19-1	DEGREE 6 41.16 39.48 39.36 42.91 46.94 55.69 59.48 61.13 0MEGA - 9 0000 0000 0000 0000 0000 0000	627.8 627.8 644.2 683.8 695.5 680.1 655.5 648.2 FF-AD OTAL UU .000.0 .000.0 .000.0 .000.0	FT/SEC 801.9 802.8 801.8 8518.3 890.5 919.3 939.7 985.0 1000.4 EFF-P STATIC .7760 .7760 .7929 .8673 .9158 .8916	FT/SEC, 205. 177. 11843218399411425. 3 M-1 .84685879872765045943	V01-2 FT/SEC 7 -527.1 0 -510.4 5 -599.5 5 -599.5 7 -671.6 7 -752.6 1 -848.4 0 -876.0 M-2 7 .525.0 1 .5540.1 1 .578.3 1 .578.3 1 .578.3 1 .446.0 1 .446.0	FT/SEC 7 513-2 7 513-2 7 513-2 8 552-2 6 612-2 6 694-8 8 755-8 8 875-7 8 -58540 6 6228 6 6228 6 6228 7 6974 8 636-3 8 75-7	FT/SEC 538. 5538. 571. 625. 709. 836. 836. 857. 876. 4* -2 .6978 .714. .749. .841. .841. .841.
% SPAN 5 10 15 30 50 70 85 90 90 \$ \$ \$ 10 15 30 50 70 85 90 90 90 90 90 90 90 90 90 90 90 90 90	DIA-1 IN 17-720 18-350 21-140 23-970 28-860 29-570 30-243 INCS DEGREE -69 -89 -1-95 2-66	IN 18.58 19.11 19.74 21.60 24.20 25.88 28.90 29.60 30.27 IN(M DESREE 4.56 5.11.66 5.5 11.66 5.5 11.66 5.5 11.66 5.5 11.66 5.5 11.66 5.5 11.66 5.5 11.66	FT/SEQ. 932-0 932-0 932-0 929-1 887-5 887-5 677-5 665-0 0EV JEGREE 17-46 16-20 16-20 16-20 16-63 16-63 16-63	FT/SEC 604-0 624-9 634-9 659-8 628-2 520-4 500-1 483-2 TURN DEGRES 49-51 44-47 37-58 33-15 37-4; 40-14 42-58	FT/SEC S93.2 621.1 681.4 689.3 589.1 538.3 510.3 489.1 CAMBER DEORES 62.54 59.59 57.63 44.73 44.73 45.32 45.94 46.75	FT/SEC 6J3-7 613-6 632-6 658-3 627-5 558-4 520-2 500-0 483-0 50LIDTY 2.1077 2.0289 1.9463 1.7526 1.5486 1.3872 1.2871	FT/SEC 718.3 708.4 671.1 568.7 476.1 436.3 435.9 445.2 450.5 0-FAC .5279 .4299 .4299 .4299 .439.2 .4853 .5192	FT/SEC 10.3 43.0 52.7 25.9 29.2 23.0 14.3 8.8 .6 0MEGA-0 .1254 .1582 .1418 .753 .0412 .0412 .1000 .113( .1241	0667EL ( 50.47 48.76 46.23 59.84 35.82 36.59 41.12 42.64  LOSS-P TOTAL ( 0297 0389 0215 01133 0249 0388	2-66 3-76 3-76 2-67 2-67 2-358 9-97 LOSS-P ROFILE 0299 -0389 -0215 -0139 -0350 -0450	DEGREE 121-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1-1	DEGREE 6 41.16 39.48 42.31 46.94 53.56 57.69 59.48 61.13 0MEGA - 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9 0000 0000 0000 0000 0000 0000	627.8 644.2 654.8 654.8 695.6 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1 671.1	FT/SEC 801.9 802.8 801.8 801.8 919.3 919.3 985.0 1000.4 EFF-P STATIC .8193 .7766 .8573 .8673 .9159 .8066 .7933 .7683	FT/SEC. 2u5. 177. 118. 143. 143. 143. 143. 143. 143. 143. 143	V01-2 FT/SEC 7-527.1 -510.1 5-599.6 5-599.6 5-671.6 5-782.6 1-848.6 3-876.6 1-848.6 3-876.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-554.6 1-	FT/SEC 2 513.2 2 513.2 2 513.2 2 612.2 6 612.2 6 612.8 8 613.6 8 75.7 M - 1 7 .5854 6 .5947 6 .5947 6 .5947 6 .5947 7 .5954 7 .5954 8	FT/SEC 538: 5538: 571: 625: 571: 836: 8376: 8576: 876: 876: 876: 876: 876: 876: 876: 8

#### 90% of Design Speed

	- <del>-</del>						90/	$^{0}$ or $^{\circ}$	argir i	pccu								
	DIA-1	DIA-2	V-1	_v-2	V.1-1	€'H-2	Y0+1	V0-2	R-1	B-2	B'-1	BI-2 DEGREE F	y : -1	V1-2	VO:-1	Y0 2	U=1	U=2
% SPAN	IN	DIA-2 In F	TISEC I	T/SEC F	T/SEC I	T/SEC F	T/SEC I	T/SEC I	CGREE I	DEGREE D	EGREF.	DEGREE F	T/SEC F	T/SEC F	TISEC P	T/SEC	FT/SEC_	FT/SEC
5		16.930	550∙€	1005.6	550.6	621 • 1	- 0	790.9	.06	51.86	34 • 66	-27.65	669.3	701.4	-380.7	325.8	380.7	465.1
10		16.790	567.8		567.8	626 • 5		764.9	• 6 6			-23.86	699.9		-409+1			
15		17.56C	564.0			635.2		715.0	• 66			-17.86	731.3		-440.1			
30		19.910		874.9	615.2	637.7		596.6	٠٥٠		40.69		813-1		-530.4	21.1		
50		23.090		767.8	629.6	_565.3					45.62		200.6	611.4	-643.8	-173.0	643.8	
70		26.260		676.4	540.8	498.5	• 0		• 50	+2.53		31.46	926 • 1		-750.9			_
85		28.010		627.5	475.0	426 • 1	• C		ىن.		60.03		952.9		-925-4			
90		29.410	470.9		470.9		• 0		. 03	50.49	61.03		972.4		-850.7			
95	30.150	30 • 180	4/2+3	297.9	472.3	362 • 1	• 0	468.2	• 0 0	22.24	61.63	48.36	994•1	343.2	-B74.8	-40/04	874 • 8	875.6
	****	7110.4		71101		341 115 74			(000-		0027	555-0 F				u_3	M*-1	M1-2
% SPAN	INCS	INCM	DEV			SCP1DIT	D-FAC	MEGA-A	TOTAL	LOSS-P	DO:	FFF-P F	PP-AU	DIE SATE		M-2	W1	
20 21 Will	DEGREE 1	.55				0 6705	2.01	2160			1.4079		.6695		.5071	.9211	.6174	.6425
10	-5.76	• 69	7.31	62.34 59.65		2.2851	.2901		•0284		1.4344		9050	•6000		9025		
15	-5.30	97	9.06		:	2.1571	.3293		•0222		1.4345		.9280	.0000		8697		
30	-4.60					1.9045	•4144	• 0401	•0105		1.4263		9631	.0000		7883		
50	-2.94	2.04	11.67			1.6911	4974	0735	0206		1.3879	.9231	9194	0000	5823	6835		
70	3.02		11.30			1.5350	.5299	.0342	•0095		1.4293		9613	.0000		5945		
85	6.87			19.69		1.4422	5760	- 1636	.0166		1.4617		.9333	.ococ		•5460		
90	6.87			16.12		1.4149	6089	.1170	0293		1.4537		.8789	.0000		+5266	-8697	.4731
95	6.50		14.20			1.3636	.6212			0360	1 . 4446	.8498	8419	.0000		•5113	•9ე82	.4709
33				•									_	•				
		VCOR-1	WCCR-1	MC/A-1	102/	PC2/	EFF-AD	EFF-P							STA-1 S	rA-2 S	LANT-1	SLANT-2
				BM/SEC		F01	%	%								Ō	EGPEE	DEGREF
				SQFT		-		•										
		6649.0	161.81	36.48	1.1146	1.4215	92.346	92.77							e a	6.0	86.05	95.02
															5.0			
STA	ror																	
		U <b>IA-2</b>	V-1	Y-2		VM-5	<u> </u>	<u></u>	B-1	B-5	H:-1	81-2	v*-1	V <b>'-</b> 2	Y0'-1	¥0•-5	U~1	_u-2
% SPAN	IN DIA-1	474 )										B'-2 DEGREE						
% SPAN 5	DIA-1 IN 17-720	18.580	914.1	584.7	571.5	584.4	713.4	3.9	51.30	• 37	-19.22	42.45	605.3	792.5	199.2	-535.1	514-1	539.1
% <u>SPAN</u> 5 10	DIA-1 IN 17.720 18.350	18.580 19.110	914.1 923.2	584 • 7 600 • 8	571.5 600.6	584.4 599.2	713.4 701.0	3.9 41.1	51.30 49.41	•37 3•91	-19.22 -15.68	42.43	605•3 624•0	792.5 789.1	199.2	-535.1 -513.4	514 · 1 53,7 · 4	539 • 1 554 • 5
% <u>SPAN</u> 5 10 15	DIA-1 IN 17.720 18.350 19.070	18.580 19.110 19.740	914.1 923.2 909.4	584•7 600•8 611•8	571.5 600.6 622.2	584.4 599.2 699.4	713.4 701.0 662.9	3.9 41.1 54.2	51.30 49.41 46.81	.37 3.91 5.08	-19.22 -15.68 -10.02	42.43 40.59 40.39	605.3 624.0 632.5	792.5 789.1 800.2	199.2 168.6 109.6	-535.1 -513.4 -518.5	514 • 1 532 • 4 553 • 3	539•1 554•5 572•7
% <u>SPAN</u> 5 10 15 30	DIA-1 IN 17.720 18.350 19.070 21.140	18.580 19.110 19.740 21.600	914.1 923.2 909.4 670.9	584.7 600.8 611.8 640.8	571.5 600.6 622.2 661.9	584.4 599.2 639.4 640.0	713.4 701.0 662.9 565.6	3.9 41.1 54.2 31.3	51.30 49.41 46.81 40.49	.37 3.91 5.08 2.80	-19.22 -15.68 -10.02	42.43 40.59 40.39 42.91	605.3 624.0 632.5 665.0	792.5 789.1 800.2 874.2	199.2 168.6 109.6 -47.8	-535.1 -513.4 -518.5 -595.3	514.1 532.4 553.3 613.3	539.1 554.5 572.7 626.7
% <u>SPAN</u> 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970	18.580 19.110 19.740 21.600 24.200	914.1 923.2 909.4 870.4 799.8	584.7 600.8 611.8 640.8 611.6	571.5 600.6 622.2 661.9 640.3	584.4 599.2 699.4 640.0 610.6	713.4 701.0 662.9 565.6 479.3	3.9 41.1 54.2 31.3 35.2	51.30 49.41 46.61 40.49 36.81	.37 3.91 5.08 2.80 3.30	-19.22 -15.68 -10.02 4.10 18.66	42.43 40.59 40.39 42.91 47.52	605.3 624.0 632.5 665.0 676.8	792.5 789.1 800.2 874.2 904.5	199.2 168.6 109.6 -47.8	-535.1 -513.4 -518.5 -595.3 -667.0	514 • 1 532 • 4 553 • 3 613 • 3 695 • 5	539•1 554•5 572•7 626•7 702•1
% SPAN 5 10 15 30 50 70	DIA-1 TN 17.720 18.350 19.070 21.140 23.970 26.790	18.580 19.110 19.740 21.600 24.200 26.880	914-1 923-2 909-4 870-9 799-8	584.7 600.8 611.8 640.8 611.6 547.5	571.5 600.6 622.2 661.9 640.3	584.4 599.2 699.4 640.0 610.6	713.4 701.0 662.9 565.6 479.3	3.9 41.1 54.2 31.3 35.2 24.4	51.30 49.41 46.81 40.49 36.81	37 3.91 5.08 2.80 3.30 2.55	-19.22 -15.68 -10.02 4.10 18.66	42.43 40.59 40.39 42.91 47.52	605.3 624.0 632.5 665.0 676.8	792.5 789.1 800.2 674.2 904.5	199.2 168.6 109.6 -47.8 -216.2	-535.1 -513.4 -518.5 -595.3 -667.0	514.1 532.4 553.3 613.3 695.5	539.1 554.5 572.7 626.7 702.1
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.140 21.140 25.970 26.790 28.860	18.58U 19.110 19.740 21.600 24.200 26.880 28.900	914-1 923-2 909-4 870-9 799-8 724-9 687-5	584.7 600.8 611.8 640.8 611.6 547.5	571.5 600.6 622.2 661.9 640.3 571.8 517.5	584.4 599.2 699.4 640.0 610.6 546.9 507.9	713.4 701.0 662.9 565.6 479.3 445.5 452.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2	51.30 49.41 46.81 40.49 36.81 37.93 41.18	3.91 5.08 2.80 3.30 2.55	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65	42.43 40.59 40.39 42.91 47.52 54.08	605.3 624.0 632.5 665.0 676.8 661.7 645.0	792.5 789.1 800.2 874.2 904.5 933.0 966.7	199.2 168.6 109.6 -47.8 -216.2 -331.8 -384.8	-535.1 -513.4 -518.5 -595.3 -667.0 -755.5	514-1 532-4 553-3 613-3 695-5 777-3 637-3	539-1 554-5 572-7 626-7 702-1 779-9 638-5-
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.58U 19.110 19.740 21.600 24.200 26.880 28.900 29.600	914.1 923.2 909.4 870.9 799.8 724.9 687.5	584.7 600.8 611.8 640.8 611.6 547.5 508.2 488.3	571.5 600.6 622.2 661.9 640.3 571.8 517.5 488.1	584.4 599.2 699.4 640.0 610.6 546.9 507.9	713.4 701.0 662.9 565.6 479.3 445.5 452.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3	51.30 49.41 46.81 40.49 36.81 37.93 41.18	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06	42.43 40.59 40.39 42.91 47.52 54.08 58.29 60.08	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6	792.5 789.1 800.2 674.2 904.5 933.0 966.7 979.1	199.2 168.6 109.6 -47.8 -216.2 -331.8 -384.8	-535.1 -513.4 -516.5 -595.3 -667.0 -755.5 -822.3	514-1 532-4 553-3 613-3 695-5 777-3 637-3 637-9	539-1 554-5 572-7 626-7 702-1 779-9 638-5-
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.58U 19.110 19.740 21.600 24.200 26.880 28.900	914.1 923.2 909.4 870.9 799.8 724.9 687.5	584.7 600.8 611.8 640.8 611.6 547.5 508.2 488.3	571.5 600.6 622.2 661.9 640.3 571.8 517.5	584.4 599.2 699.4 640.0 610.6 546.9 507.9	713.4 701.0 662.9 565.6 479.3 445.5 452.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3	51.30 49.41 46.81 40.49 36.81 37.93 41.18	37 3.91 5.08 2.80 3.30 2.55 1.82	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65	42.43 40.59 40.39 42.91 47.52 54.08 58.29 60.08	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6	792.5 789.1 800.2 674.2 904.5 933.0 966.7 979.1	199.2 168.6 109.6 -47.8 -216.2 -331.8 -384.8	-535.1 -513.4 -516.5 -595.3 -667.0 -755.5 -822.3	514-1 532-4 553-3 613-3 695-5 777-3 637-3 637-9	539-1 554-5 572-7 626-7 702-1 779-9 638-5-
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	914.1 923.2 909.4 670.9 799.8 724.9 687.5 672.4	584.7 600.8 611.8 640.8 611.6 547.5 508.2 488.3 471.0	571.5 600.6 622.2 661.9 640.3 571.8 517.5 488.1 466.7	584.4 599.2 699.4 640.0 610.6 546.9 507.9 488.1 471.0	713.4 701.0 662.9 565.6 479.3 445.5 452.5 466.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3	51.30 49.41 46.81 40.49 36.81 37.93 41.16 43.46	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36	42.43 40.59 40.39 42.91 47.52 54.08 58.29 60.72	605.3 624.0 632.5 665.0 676.8 061.7 645.0 628.6	792.5 789.1 800.2 674.2 904.5 933.0 966.7 979.1	199.2 168.6 109.6 -47.8 -316.2 -331.6 -364.6 -375.8 -410.9	-535.1 -513.4 -516.5 -595.3 -667.0 -755.5 -822.3 -846.5 -875.4	514-1 532-4 553-3 613-3 695-5 777-3 637-3 637-9	539·1 554·5 572·7 626·7 702·1 779·9 636·5 856·5
% <u>SPAN</u> 5 10 15 30 50 70 85	DIA-1 IN 17.720 18.350 19.070 21.140 25.970 26.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	914-1 923-2 909-4 870-9 799-8 724-9 687-5 672-4 659-9	584.7 600.8 611.8 640.8 611.6 547.5 508.2 488.3 471.0	571.5 600.6 622.2 661.9 640.3 571.8 517.5 488.1 466.7	584.4 599.2 699.4 640.0 610.6 546.9 507.9 488.1 471.0	713.4 701.0 662.9 565.6 479.3 445.5 452.5 466.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3	51.30 49.41 46.81 40.49 36.81 37.93 41.18 43.46 44.99	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36	42.43 40.59 40.39 42.91 47.52 54.08 58.29 60.08 61.72	605.3 624.0 632.5 665.0 676.8 601.7 645.0 628.6 621.9	792.5 789.1 800.2 874.2 904.5 933.0 966.7 979.1 994.1	199.2 168.6 109.6 -47.8 -216.2 -331.8 -384.8	-535.1 -513.4 -516.5 -595.3 -667.0 -755.5 -822.3	514-1 532-4 553-3 613-3 695-5 777-3 637-3 637-9	539-1 554-5 572-7 626-7 702-1 779-9 638-5-
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 25.970 26.860 29.570 30.240 INCS	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	914-1 923-2 909-4 670-9 799-8 724-9 687-5 672-4 659-9 DEV	584.7 600.8 611.8 640.8 611.6 547.5 508.2 486.3 471.0 TURN DEGREE	571.5 600.6 622.2 661.9 640.3 571.8 517.5 488.1 466.7 CAMBER	584.4 599.2 609.4 640.0 610.6 546.9 507.9 488.1 471.0	713.4 701.0 662.9 565.6 479.3 445.5 452.5 462.2 466.5	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3 2.8	51.30 49.41 46.81 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/	42.43 40.59 40.39 42.91 47.52 54.08 58.29 60.08 61.72 0MEGA-B1	605.3 624.0 632.5 665.0 676.8 061.7 645.0 628.6 621.9	792.5 789.1 800.2 874.2 904.5 933.0 966.7 979.1 994.1 EFF-P	199.2 168.6 109.6 -47.8 -316.2 -331.8 -384.8 -375.8 -410.9	-535.1 -513.4 -518.5 -595.3 -667.0 -755.5 -822.3 -848.5 -875.4	514-1 532-4 553-3 613-3 695-5 777-3 637-3 637-9 877-4	539-1 554-5 572-7 626-7 702-1 779-9 638-5- 858-8 876-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE	18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM	914-1 923-2 909-4 870-9 724-9 687-5 672-4 659-9 DEV DEGREE 16-86	584.7 600.8 611.8 640.8 611.6 547.5 508.2 488.3 471.0	571.5 600.6 622.2 661.9 571.8 517.5 488.1 466.7 CAMBER DEGREE 62.53	584.4 599.2 699.4 640.0 610.6 546.9 507.9 488.1 471.0 50 <u>LID</u> TY	713.4 701.0 662.9 565.6 475.5 452.5 462.2 466.5 D=FAC	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3 2.8 OMEGA-B	51.30 49.41 46.61 36.81 37.93 41.16 43.46 44.99 LOSS-P TOTAL 0304	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0304	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6 621.9 EFF-AD TOTAL	792.5 789.1 800.2 874.2 904.5 933.0 966.7 979.1 994.1 EFF-P STATIC -8178	199.2 168.6 109.6 -47.8 -31.6 -31.6 -31.6 -31.6 -31.6 -31.6 -31.6 -410.9 -410.9	-535.1 -513.4 -518.5 -595.3 -667.5 -822.3 -848.5 -875.4 4-2	514-1 532-4 553-3 613-3 777-3 637-3 637-9 A77-4 M'-1	539-1 554-5 554-5 626-7 702-1 779-9 838-5- 838-8-8 876-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.860 29.860 29.870 30.240 INCS DEGREE 1.47	18-58U 19-110 19-740 21-600 24-200 26-880 28-900 29-600 30-270 INCM DE GREE ( 5-77	914-1 923-2 909-4 679-8 724-9 687-5 672-4 659-9 DEV DEGREE 16-86 19-87	584.7 600.8 611.8 640.8 611.6 517.5 508.2 488.3 471.0 TURN DEGREE 50.93	571.5 600.6 622.2 661.9 640.3 571.8 517.5 486.1 466.7 CAMBER DEGREE 62.53 59.58	584.4 599.2 609.4 640.0 610.6 546.9 507.9 488.1 471.0	713.4 701.0 662.9 565.6 475.5 452.5 462.2 466.5 D-FAC .5400	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3 2.8 OMEGA-B .1282 .1619	51.30 49.41 46.81 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0304	-37 3-91 5-08 2-80 3-30 2-55 1-82 1-19 PROFILE -0304	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .9538	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6 621.9 EFF-AD TOTAL .0000 .0000	792.5 789.1 800.2 674.2 904.5 933.0 966.7 979.1 994.1 EFF-P STATIC .8178 .7742	199.2 168.6 109.6 -47.8 -31.6 -31.6 -31.6 -31.6 -410.9 M-1 .8282 .6312	-535.1 -513.4 -516.5 -595.3 -667.0 -755.5 -822.3 -846.5 -875.4 M-2 .5078 .5222	514-1 532-4 532-4 5613-3 693-5 777-3 637-9 877-4 M-1 -5514	539-1 554-5 572-7 626-7 702-1 779-9 638-5- 858-8 876-2 4-2
% SPAN 5 10 15 30 50 70 85 90 95	DIA-1 17.720 18.350 19.070 21.140 26.790 28.860 29.570 30.240 LNCS DEGREE 1.47 1.51	18-58U 19-110 19-140 21-600 24-200 26-880 28-900 29-600 30-270 INCM UEGREE ( 5-44 5-47 4-97	914-1 923-2 909-4 679-8 724-9 687-5 672-4 659-9 DEV DEGREE 16-86 19-87	584-7 600-8 611-8 640-8 611-6 547-5 508-2 486-3 471-0 TURN DEGREE 1 50-93 41-72	571.5 600.6 622.2 661.9 571.8 517.5 488.1 466.7 CAMBER DEGREE 62.53 57.07	584.4 599.2 699.4 640.0 610.6 546.9 507.9 488.1 471.0 50LIQTY 2.1079 2.0293	713.4 701.0 662.9 565.6 479.3 445.5 452.5 466.5 D=FAC .5400 .4956	3.9 41.1 54.2 35.2 24.4 16.2 10.3 2.8 OMEGA-B .1282 .1486	51.30 49.41 46.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0304 0398	.37 3.91 2.80 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0304 .0398	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .9538	42.43 40.59 40.59 47.52 54.08 58.29 60.08 61.72 0MEGA-B! HOCK .0000	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6 621.9 EFF-AD 70TAL .0000 .0000	792.5 789.1 800.2 874.2 904.5 933.0 966.7 979.1 994.1 EFF-P STATIC .8178 .7742 .7850	199.2 168.6 109.6 -47.8 -216.2 -331.6 -364.8 -375.8 -410.9 M-1 .8282 .8312 .8186	-535.1 -513.4 -518.5 -597.0 -755.5 -822.3 -888.5 -875.4 M-2 .5078	514-1 532-4 553-3 613-3 613-3 613-3 637-3 637-9 877-4 M-1 -5514 -5514 -5729	539-1 554-5 577-7 626-7 702-1 779-9 638-5- 858-6 876-2 M*-2 -6893 -6659
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 1.47 1.51	18-58U 19-110 19-740 21-600 24-200 26-880 28-900 29-600 30-270 INCM DEGREE [ 5-44 5-77 4-77	914-1 923-2 907-9 670-9 724-9 687-5 672-4 659-9 0EV DEGREE 19-87 20-52 16-82	584.7 600.8 611.8 640.8 641.6 547.5 508.2 486.3 471.0 TURN DEGREE 45.50 41.7 23.5	571.5 600.6 621.9 640.3 571.8 517.8 517.8 516.7 488.1 466.7 CAMBER 52.53 59.58 57.57	584.4 599.2 609.4 640.0 610.6 546.9 507.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470	713.4 701.0 662.9 565.6 479.3 445.5 452.5 466.5 D=FAC .5400 .4956	3.9 41.1 54.2 35.2 24.4 16.2 10.3 2.8 OMEGA-B .1282 .1486	51.30 49.41 46.81 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0398	-37 3-91 2-80 2-80 3-30 2-55 1-82 1-19 -34 LOSS-P PROFILE -0304 -0398 -0380 -0224	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .9407 .9469 .9737	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0MEGA-B1 HOCK .0000	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6 621.9 EFF-AD TOTAL .0000 .0000	792.5 789.1 800.2 674.2 904.5 933.0 966.7 979.1 994.1 EFF-P STATIC .8178 .7742	199.2 168.6 109.6 -47.8 -31.6 -31.6 -31.6 -31.6 -410.9 M-1 .8282 .6312	-535.1 -513.4 -518.5 -597.0 -755.5 -822.3 -888.5 -875.4 M-2 .5078	514-1 532-4 553-3 6513-3 6513-3 677-3 637-9 877-4 M1 -5514 -5642 -5642 -5990	539-1 554-5 554-5 626-7 626-7 702-1 779-9 858-5- 858-6 876-2 49-2 66959 -6959 -7658
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS DEGREE 1.47 1.51	18-58U 19-110 19-740 21-600 24-200 26-880 28-900 29-600 30-270 INCM DEGREE [ 5-77 4-97 2-71 2-82	914-1 923-2 909-4 799-8 724-9 687-5 659-9 DEV DEGREE 16-86 19-87 20-52 16-82 14-94	584.7 600.8 611.8 640.8 641.6 547.5 508.2 486.3 471.0 TURN DEGREE 45.50 41.7 23.5	571.5 600.6 622.6 661.9 640.3 571.8 517.8 486.7 CAMBER 1 0EGREE 62.53 59.58 57.07 51.76 49.72	584.4 599.2 699.2 640.0 610.6 546.9 507.9 488.1 471.0 50LIQTY 2.1079 1.9470 1.7535	713.4 701.0 662.6 479.3 445.5 452.5 466.5 D-FAC .5400 .5213 .4368 .4134	3.9 41.1 54.2 31.3 35.2 24.4 16.2 10.3 2.8 0MEGA-B .1619 .1619 .1486 .0787 .0438	51.30 49.41 46.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0304 0382 0382	-37 3-91 5-98 2-80 3-30 2-55 1-82 1-19 -34 LOSS~P PROFILE -0304 -0394 -0384 -0384 -0384	-19.22 -15.68 -10.06 4.10 18.66 30.13 36.65 41.36 41.36 -9407 .9407 .9407 .9407	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1 HOCK 40000 40000	605.3 624.0 635.0 676.8 661.7 645.0 628.6 621.9 EFF-AD TOTAL .0000 .0000	792.5 789.1 800.2 874.2 904.5 933.0 966.7 7979.1 994.1 EFF-P STATIC .8178 .7742 .78617	199.2 168.6 109.6 -47.8 -316.2 -331.6 -375.8 -410.9 M-1 .8282 .6312 .7829	-535.1 -513.4 -513.4 -515.3 -667.0 -755.5 -822.3 -886.5 -875.4 4-2 -5078 -522.3 -5613	514-1 532-4 532-4 5613-3 695-5 777-3 637-9 877-4 M*-1 -55441 -55641 -57990 -6048	539-1 554-5 572-7 626-7 702-1 779-9 838-5- 876-2 4-2 6859 -6859 -6959 -7658 -7917
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 29.570 30.240 INCS UEGREE 1.47 1.51 -2.09 -2.07	18.58U 19.110 19.140 21.600 24.200 26.880 28.900 29.600 30.270 INCM UEGREE [ 5.44 5.44 4.97 2.71 2.82 10.69	914-1 923-2 970-9 670-9 724-9 687-5 672-4 659-9 0EV DEGREE 16-86 19-87 216-82 14-04 15-44	584-7 600-8 611-8 640-8 611-6 547-5 506-5 486-3 471-0 TURN DEGREE 50-93 45-50 37-69 33-51 35-38	571.5 600.6 622.6 661.9 640.3 571.8 517.8 488.1 486.7 CAMBER 926.853 59.58 59.58 44.72 44.31	584.4 599.2 699.2 640.0 610.6 546.9 546.9 488.1 471.0 50L10TY 2.1079 2.0293 1.9491 1.3875 1.2872	713.4 701.0 662.9 555.6 479.3 452.5 452.5 466.5 D-FAC .5213 .4368 .4134 .4537	3.9 41.1 51.3 31.3 55.2 24.4 16.3 2.8 0MEGA-B .1619 .0787 .0438 .07438	51.30 49.41 40.49 36.81 37.93 41.18 44.99 TOTAL 03.04 03.98 0.224 0.181 0.029	-37 3-91 2-80 2-80 3-30 2-55 1-82 1-19 -34 LOSS-P PROFILE -0394 -0398 -0380 -0224 -0141 -0259 -0443	-19-22 -15-68 -10-68 4-10 18-66 30-13 36-65 39-06 41-36 -9538 -9407 -9469 -9737 -9874 -9752	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0MEGA-B1 MOCK .0000 .0000 .0000	605.3 624.0 632.5 665.0 676.8 661.7 645.0 628.6 621.9 FFF-AD TOTAL .0000 .0000 .0000	792.5 789.1 8004.2 904.5 933.0 966.7 979.1 994.1 EFF-P STATIC .8178 .7742 .7850 .8617 .9119	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -410.9 -410.9 -410.9 -410.9 -410.9 -7150 -618.6 -603.4	-535.1 -513.4 -518.5 -595.3 -667.0 -755.3 -886.5 -875.4 4-2 -5078 -5222 -5329 -5613	514-1 532-4 553-3 613-3 695-5 777-3 637-9 837-9 877-4 M*-1 -5514 -5514 -5641 -5604 -5604 -5604 -5656	539-1 554-5 572-7 626-7 702-1 779-9 638-5- 858-6 876-2 4-2 -6859 -6970 -7617 -7157
% SPAN 5 10 15 30 70 85 90 95 % SPAN 5 10 15 30 70 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18-58U 19-110 19-110 21-600 24-200 26-880 29-600 30-270 INCM DEGREE 5-44 5-77 4-97 2-71 2-82 6-42 10-69	914-1 923-2 970-9 799-8 724-9 687-5 672-5 659-9 DEV DEGREE 16-86 19-87 20-52 14-94 15-84 16-82	584.7 600.8 610.8 611.6 547.5 508.3 471.0 TURN DEGREE 35.50 41.75 35.38 39.36 42.26	571.5 600.6 622.6 661.9 640.3 571.8 517.8 488.1 466.7 CAMBER 59.58 57.07 44.72 44.31 45.94	584.4 599.2 699.4 640.0 610.6 546.9 546.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470 1.7535 1.5491 1.3875 1.2558	713.4 701.0 662.9 565.6 479.3 445.5 466.5 U-FAC .5213 .4936 .4134 .4537 .5074	3.9 41.1 54.2 31.3 35.2 24.4 16.3 10.3 16.8 0MEGA-B .1619 .0787 .0438 .0721 .11495	51.30 49.41 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0398 0141 0259 044 0259	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0304 .0398 .0398 .0284 .0141 .0259 .0443	-19.22 -15.68 -10.06 4.10 18.66 39.06 41.36 -901 -915.9 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -940	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1 HOCK .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 601-7 645-0 628-6 621-9 FFF-AD TOTAL -0000 -0000 -0000 -0000	792.5 789.1 800.2 974.2 904.5 933.0 966.7 979.1 994.1 EFF-P 5TATIC .8178 .7742 .7858 .8617 .9119 .8584 .7864 .7766	199.2 168.6 109.6 -47.8 -216.2 -331.8 -410.9 M-1 .8282 .6312 .7150 .6418 .6384	-535.1 -513.4 -518.5 -595.3 -667.0 -755.3 -826.5 -875.4 *5078 -5078 -5078 -5078 -5078 -5078 -4756 -4756 -4193	514-1 5532-3 553-3 563-3 563-3 695-5 777-3 637-9 877-4 4-1 -5642 -5642 -6648 -5863 -5863	539-1 554-5 576-7 626-7 702-1 779-9 838-5- 858-8 876-2 49-2 -6893 -6659 -6659 -7917 -8105 -8333 -8407
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18.58U 19.110 19.140 21.600 24.200 26.880 28.900 29.600 30.270 INCM UEGREE [ 5.44 5.44 4.97 2.71 2.82 10.69	914-1 923-2 970-9 799-8 724-9 687-5 672-5 659-9 DEV DEGREE 16-86 19-87 20-52 14-94 15-84 16-82	584.7 600.8 610.8 611.6 547.5 508.3 471.0 TURN DEGREE 35.50 41.75 35.38 39.36 42.26	571.5 600.6 622.6 661.9 640.3 571.8 517.8 488.1 466.7 CAMBER 59.58 57.07 44.72 44.31 45.94	584.4 599.2 699.2 640.0 610.6 546.9 546.9 488.1 471.0 50L10TY 2.1079 2.0293 1.9491 1.3875 1.2872	713.4 701.0 662.9 555.6 479.3 452.5 452.5 466.5 D-FAC .5213 .4368 .4134 .4537	3.9 41.1 54.2 31.3 35.2 24.4 16.3 10.3 16.8 0MEGA-B .1619 .0787 .0438 .0721 .11495	51.30 49.41 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0398 0141 0259 044 0259	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0304 .0398 .0398 .0284 .0141 .0259 .0443	-19.22 -15.68 -10.06 4.10 18.66 39.06 41.36 -901 -915.9 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -940	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0MEGA-B1 MOCK .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 661-7 645-0 628-6 621-9 TOTAL -0000 -0000 -0000 -0000	792.5 789.1 800.2 974.2 904.5 933.0 979.1 979.1 994.1 EFF-P 5TATIC .8178 .7742 .7742 .8584 .8584 .7889	199.2 168.6 109.6 -47.8 -216.2 -331.8 -410.9 M-1 .8282 .6312 .7150 .6418 .6384	-535.1 -513.4 -518.5 -595.3 -667.0 -755.3 -826.5 -875.4 *5078 -5078 -5078 -5078 -5078 -5078 -5078 -4756 -4756 -4193	514-1 5532-3 553-3 563-3 563-3 695-5 777-3 637-9 877-4 4-1 -5642 -5642 -6648 -5863 -5863	539-1 554-5 576-7 626-7 702-1 779-9 838-5- 858-8 876-2 4-2 -689 -689 -7658 -7917 -8103 -8303 -8407
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18.58U 19.110 19.110 21.600 24.200 26.880 28.900 29.600 30.270 INCM UEGREE ( 5.47 4.97 2.71 2.71 2.642 10.69 12.93	914-1 923-2 97-9-8 724-9 687-5 657-5 659-9 DEV DEGREE 16-86 19-52 16-82 16-87 16-87 16-67	584-7 601-8 641-8 641-8 547-5 548-3 471-0 TURN DEGREE: 50-53 45-72 37-54 39-36 44-65	571.5 600.6 622.2 661.9 640.3 571.6 517.5 71.6 71.6 71.6 71.6 71.6 71.6 71.6 71.6	584.4 599.2 699.2 640.0 610.6 546.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470 1.7535 1.5491 1.3875 1.2872 1.2558 1.2273	713.4 701.0 662.9 555.6 479.3 452.5 452.5 466.5 D-FAC .54134 .4134 .4537 .5072 .5414	3.9 41.1 54.2 31.3 55.2 24.4 10.3 2.8 0MEGA-B .1282 .1619 .0438 .0787 .0438 .0721 .1140 .1295	51.30 49.41 40.49 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0398 0141 0259 044 0259	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0304 .0398 .0398 .0284 .0141 .0259 .0443	-19.22 -15.68 -10.06 4.10 18.66 39.06 41.36 -901 -915.9 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -9407 -940	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1 HOCK .0000 .0000 .0000	605.3 624.0 635.5 665.0 676.8 661.7 645.0 628.6 621.9 EFF-AD TOTAL .0000 .0000 .0000 .0000	792.5 789.1 800.2 904.2 904.5 933.0 979.1 994.1 EFF-P STATIC .8178 .7742 .7850 .8617 .7889 .7706	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -375.8 -410.9 M-1 .2282 .6312 .6186 .7829 .7150 .6418 .6038 .5745	-535.1 -513.4 -516.5 -595.3 -667.0 -755.3 -828.5 -875.4 -5222 -5013 -5353 -4756 -4361 -4193 -4031	514-1 532-4 553-3 695-3 695-3 695-3 637-9 837-9 8-1 -5641 -5729 -56048 -56048 -5605 -5605 -5606 -5606 -5606 -5606 -5606 -5606	539-1 554-5 557-7 626-7 702-1 779-9 638-5- 858-6 876-2 4-2 -6959 -6959 -7917 -8165 -8333 -8407 -8507
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18-58U 19-110 19-110 21-600 24-880 26-880 29-600 30-270 INCM DEGREE [ 5-44 5-77 4-77 2-82 6-42 12-93 14-57	914-1 923-2 907-9-8 724-9 687-5 672-4 659-9 0EV DEGREE 16-86 19-87 216-82 14-04 15-44 16-67 WCOR-1	584-7 601-8 641-8 641-8 547-5 548-3 471-0 TURN DEGREE 50-93 45-50 37-69 33-51 35-36 42-26 44-65	571.5 600.6 622.6 661.9 640.3 571.8 517.8 488.1 486.7 CAMBER 62.53 59.58 59.58 51.76 44.72 44.31 45.94 46.74	584.4 599.2 699.2 640.0 610.6 546.9 546.9 488.1 471.0 50L10 7 2.10.79 1.949.1 1.3875 1.549.1 1.3875 1.2558 1.2273	713.4 701.0 662.9 555.6 479.3 452.5 462.2 466.5 D-FAC .5213 .4368 .4134 .4537 .5072 .5414 .5723	3.9 41.1 51.3 55.2 24.4 10.3 2.8 0MEGA-B .1282 .1619 .0787 .0438 .07438 .0721 .1295 .1431	51.30 49.41 46.81 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0380 0259 0443 0515 0515	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0308 0.0380 .0380 .0141 .0259 .0443 .0515 .0583	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .94,69 .94,69 .97,52 .97,52 .97,52 .97,52	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0000 .0000 .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 601-7 645-0 628-6 621-9 FFF-AD TOTAL -0000 -0000 -0000 -0000 -0000	792.5 789.1 800.2 874.2 904.5 933.0 976.7 979.1 994.1 EFF-P 5TATIC *8178 *7450 *8617 *8584 *7889 *7706 *7414	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -375.8 -410.9 M-1 .2282 .6312 .6186 .7829 .7150 .6418 .6038 .5745	-535.1 -513.4 -513.5 -595.3 -667.0 -755.3 -886.5 -875.4 -5222 -5329 -5613 -5353 -4756 -4756 -4756 -4756 -4756	514-1 532-4 553-3 563-3 563-3 695-5 777-3 637-9 877-4 4-56429 -56429 -56429 -56429 -5663 -5863 -5863 -5863	539-1 554-5 557-7 626-7 702-1 779-5 838-5 876-2 4-2 -6959 -6959 -7917 -8105 -8407 -8507 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18-58U 19-110 19-110 21-600 24-880 26-880 29-600 30-270 INCM DEGREE [ 5-44 5-77 4-77 2-82 6-42 12-93 14-57	914-1 923-2 907-9 799-8 724-9 687-5 672-4 659-9 DEV DEGREE 16-86 19-87 20-52 16-82 16-82 16-82 16-82 16-82	584-7 601-8 611-6 547-5 508-3 471-0 TURN DEGREE 35-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-65 45-65 45-65 45-65	571.5 600.6 622.6 661.9 640.3 571.8 517.8 488.1 486.7 CAMBER 62.53 59.58 59.58 51.76 44.72 44.31 45.94 46.74	584.4 599.2 699.2 640.0 610.6 546.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470 1.7535 1.5491 1.3875 1.2872 1.2558 1.2273	713.4 701.0 662.9 555.6 479.3 452.5 452.5 466.5 D-FAC .54134 .4134 .4537 .5072 .5414	3.9 41.1 54.2 31.3 55.2 24.4 10.3 2.8 0MEGA-B .1282 .1619 .0438 .0787 .0438 .0721 .1140 .1295	51.30 49.41 46.81 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0380 0259 0443 0515 0515	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0308 0.0380 .0380 .0141 .0259 .0443 .0515 .0583	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .94,69 .94,69 .97,52 .97,52 .97,52 .97,52	42.43 40.59 40.39 42.91 47.52 58.29 60.08 61.72 0MEGA-B1 HOCK .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 601-7 645-0 628-6 621-9 FFF-AD TOTAL -0000 -0000 -0000 -0000 -0000	792.5 789.1 800.2 874.2 904.5 933.0 976.7 979.1 994.1 EFF-P 5TATIC *8178 *7450 *8617 *8584 *7889 *7706 *7414	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -375.8 -410.9 M-1 .2282 .6312 .6186 .7829 .7150 .6418 .6038 .5745	-535.1 -513.4 -513.5 -595.3 -667.0 -755.3 -886.5 -875.4 -5222 -5329 -5613 -5353 -4756 -4756 -4756 -4756 -4756	514-1 532-4 553-3 695-3 695-3 695-3 637-9 837-9 8-1 -5641 -5729 -56048 -56048 -5605 -5605 -5606 -5606 -5606 -5606 -5606 -5606	539-1 554-5 557-7 626-7 702-1 779-5 838-5 876-2 4-2 -6959 -6959 -7917 -8105 -8407 -8507 SLANT-2
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18-58U 19-110 19-140 21-600 24-200 26-880 29-600 30-270 INCM UE GREE 5-77 4-97 2-71 2-82 10-69 12-93 14-57	914-1 923-2 909-4 670-9 724-9 687-5 672-4 659-9 DEV DEGREE 16-86 16-86 15-44 16-87 16-90 16-67 WCOR-1	584-7 600-8 640-8 611-6 547-5 486-3 471-0 TURN DEGREE 30-53 41-72 37-69 33-51 39-36 42-65 WC/A-1 LUM/SEC	571.5 600.6 622.2 661.9 640.3 571.6 517.5 488.1 466.7 CAMBER 62.53 59.58 57.07 51.76 44.72 44.31 45.94 46.74	584.4 599.2 699.2 640.0 610.6 546.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470 1.7535 1.5491 1.3875 1.2878 1.2273 PO1	713.4 701.0 662.9 565.6 479.3 452.5 466.5 D-FAC .5400 .5213 .4956 .4134 .5723 .5723 .5723	3.9 41.1 31.3 35.2 24.4 10.3 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6	51.30 49.41 46.81 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0380 0259 0443 0515 0515	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0308 0.0380 .0380 .0141 .0259 .0443 .0515 .0583	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .94,69 .94,69 .97,52 .97,52 .97,52 .97,52	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0000 .0000 .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 601-7 645-0 628-6 621-9 FFF-AD TOTAL -0000 -0000 -0000 -0000 -0000	792.5 789.1 800.2 874.2 904.5 933.0 976.7 979.1 994.1 EFF-P 5TATIC *8178 *7450 *8617 *8584 *7889 *7706 *7414	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -410.9 M-1 .8282 .6312 .7150 .6418 .5745 .5745 .5745 .5745	-535.1 -513.4 -513.4 -595.3 -667.0 -755.5 -826.3 -888.5 -875.4 -522. -5353. -4756. -4381. -4193. -4051.	514-1 532-4 543-5 543-5 643-5 777-3 657-9 657-9 657-9 65641 65641 65641 65641 65641 65641 65641 65641	539-1 554-5 557-7 626-7 702-1 779-9 638-5- 858-8 876-2 40-2 6659 -6970 -7617 -8105 -8333 -8507 SLANT-2 DEGREE
% SPAN 5 10 15 30 50 70 85 90 95 % SPAN 5 10 15 30 50 70 85 90 95	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 28.860 29.570 30.240 INCS DEGREE 1.47 1.51 -2.09 -2.67 -32	18-58U 19-110 19-140 21-600 24-200 26-880 29-600 30-270 INCM UE GREE 5-77 4-97 2-71 2-82 10-69 12-93 14-57	914-1 923-2 909-4 670-9 724-9 687-5 672-4 659-9 DEV DEGREE 16-86 16-86 15-44 16-87 16-90 16-67 WCOR-1	584-7 601-8 611-6 547-5 508-3 471-0 TURN DEGREE 35-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-50 45-65 45-65 45-65 45-65	571.5 600.6 622.2 661.9 640.3 571.6 517.5 488.1 466.7 CAMBER 62.53 59.58 57.07 51.76 44.72 44.31 45.94 46.74	584.4 599.2 699.2 640.0 610.6 546.9 488.1 471.0 50LIQTY 2.1079 2.0293 1.9470 1.7535 1.5491 1.3875 1.2875 1.2273 PO1	713.4 701.0 662.9 565.6 479.3 452.5 466.5 D-FAC .5400 .5213 .4956 .4134 .5723 .5723 .5723	3.9 41.1 31.3 35.2 24.4 10.3 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6 2.6	51.30 49.41 46.81 36.81 37.93 41.18 43.46 44.99 LOSS-P TOTAL 0394 0380 0259 0443 0515 0515	.37 3.91 5.08 2.80 3.30 2.55 1.82 1.19 .34 LOSS-P PROFILE .0308 0.0380 .0380 .0141 .0259 .0443 .0515 .0583	-19.22 -15.68 -10.02 4.10 18.66 30.13 36.65 39.06 41.36 P02/ P01 S .94,69 .94,69 .97,52 .97,52 .97,52 .97,52	42.43 40.59 40.59 42.91 47.52 54.08 58.29 60.08 61.72 0000 .0000 .0000 .0000 .0000	605-3 624-0 632-5 665-0 676-8 601-7 645-0 628-6 621-9 FFF-AD TOTAL -0000 -0000 -0000 -0000 -0000	792.5 789.1 800.2 874.2 904.5 933.0 976.7 979.1 994.1 EFF-P 5TATIC *8178 *7450 *8617 *8584 *7889 *7706 *7414	199.2 168.6 109.6 -47.8 -216.2 -31.6 -375.8 -375.8 -410.9 M-1 .2282 .6312 .6186 .7829 .7150 .6418 .6038 .5745	-535.1 -513.4 -513.5 -595.3 -667.0 -755.3 -886.5 -875.4 -5222 -5329 -5613 -5353 -4756 -4756 -4756 -4756 -4756	514-1 532-4 553-3 563-3 563-3 695-5 777-3 637-9 877-4 4-56429 -56429 -56429 -56429 -5663 -5863 -5863 -5863	539-1 554-5 557-7 626-7 702-1 779-9 638-5- 858-8 876-2 40-2 6659 -6970 -7617 -8105 -8333 -8507 SLANT-2 DEGREE

# Blade-Element and Overall Performance with Stator-Hub Slit Suction 90% of Design Speed

ROTOR	224			90%	of Des	sign Speed							
% SPAN 1N 5 13,120 10 14,100 15 15,170 30 18,280 50 22,190 70 25,880 85 28,450 90 29,320	16. 30 530. 16.790 549. 17.580 567. 19.910 599. 23.090 612. 26.26c 523. 28.610 459. 29.410 454.	5 996.4 978.9 1 946.7 5 866.7 1 762.2 0 623.2	VM-1 VM-2 T/SEC FT/SEC 536.5 6c7. 549.6 613. 567.1 622. 599.5 624. 612.1 572. 612.1 572. 459.4 485. 454.7 368. 454.7 368.	5 · 0 · 0 · 0 · 0 · 0 · 0 · 0 · 0	789.9 762.6 713.8 601.8 503.8 466.3 470.7	B-1 B-2 DEGREE DEGREE .00 51. .00 41. .00 41. .00 43. .00 43. .00 52.	35.60 16 35.60 37.75 32 41.41 37 46.37 39 55.07 36 60.84 44 61.82	-28.20 -24.22 -18.12 -2.23 16.10 31.24 41.22 45.33	7/5EC FT/ 652.5 (684.6 6 717.3 (679.8 6 887.6 5 914.5 5 943.3 5	V'-2 V0'-1 /SEC FT/SFC   689.3 -379.9 673.5 -408.2 625.9 -439.2 626.2 -529.3 596.1 -642.5 568.1 -749.3 543.0 -823.7 524.6 -848.9 525.0 -873.0	7/SEC F 325.7 276.4 204.0 24.9 -164.8 -294.0 -357.7	U-1 T/SEC F 379.9 408.2 439.2 529.3 642.5 749.3 823.7 848.9 873.0	7/5F4-1 464-1 509-0 576-5 768-3 768-3 851-5 873-8
1NCS % SPAN DEGREE 5 -5.43 10 -4.94 15 -4.55 30 -3.78 50 -2.18 70 3.95 85 7.72 90 7.65	1.69 6.9 1.71 8.8 1.88 11.4 2.8c 11.4 6.16 11.0 11.38 11.1 11.15 12.9	DEGREE DI 6 63.81 8 60.82 1 55.87 43.64 5 30.27 9 23.83 9 19.62 9 16.49	AMBER SOLIDIY EGREE 71.23 2.432 66.10 2.2843 62.98 2.1563 53.25 1.903 38 99 1.6967 26.91 1.5348 19.62 1.4428 18.27 1.4148	2174 3 .2812 5 .3329 3 .4227 7 .4994 3 .5461 2 .5978	.1955 .1269 .0510 .0369 .0777 .0446 .0834	TOTAL PROFIT	P PC2/ 54 1.4156 55 1.4367 50 1.4367 50 1.4367 52 1.4362 64 1.4363 64 1.4555 65 1.4479	70 TAL TO 8924 .9245 .9299 .9669 .9544 .9201 .8710	OTAL SHO -8870 -9206 -9367 -9652 -9178 -9521 -9158 -8640	EGA-B M-1 ICK -9000 .4883 -9000 .5279 -9000 .5541 -9000 .5543 -9000 .4764 -9000 .4145 -9000 .4145	M-2 .9114 .8923 .8597 .7799 .6776 .5907 .5414 .5234	M'-1 16015 .6343 .6551 .7417 .8221 .8379 .8616 .8808 .8991	M'-2 .6305 .6139 .5956 .5634 .5300 .4717 .4538
STATOR	NCOR-1 WCOR-1 RPM LBM/SEC 6695.0 158.23	LBM/SEC 1		EFF-AD % 92.075	%					\$74-1 \$1 5.0	DEG	NT-1 S REE D	
		_			_	<b>.</b>							
% SPAN IN 1 5 17.720 10 18.350 15 19.070 30 21.140	18.580 905.2 19.110 913.4 19.740 898.9 21.660 861.1 24.200 791.2 26.88c 717.2 28.900 678.2 29.600 664.1	573.1 587.9 597.8 629.6 599.7 534.1 491.4	VM-1 VM-2 VSEC FT/SEC 558.4 572.9 588.0 586.4 608.8 595.2 647.1 628.2 624.5 598.6 554.8 533.5 496.1 473.2 445.6 458.6	712.5 698.9 661.0 567.8 485.7 454.4 402.3	V0-2 7/SEC D 39.3 55.7 31.0 25.5 15.4 12.0 8.6	51.92 · 0 49.92 3.8	1 -19.66 2 -15.91 4 -10.17 3 3.89 18.46 3 30.09 0 36.97 4 39.48	DEGREE FT 43.18 41.24 40.91 43.40 48.01 59.11 60.74	/SEC FT/ 592.9 7 611.6 7 619.2 7 649.9 8 659.3 8 641.8 9 621.0 9	7:-2 V0:-1 7:SEC FT/SEC F 7:85.7 199.5 7:79.9 167.6 7:79.9 167.6 7:79.9 167.6 7:79.9 167.6 7:79.9 167.6 7:79.9 179.5 7:79.9 179.5 7:	T/SEC FT -537.6 -514.0 -515.9 -594.4 -665.3 -752.8 -821.3 -845.1	U-1 /SEC F' 513.1 531.3 552.2 612.1 694.0 775.7 835.6 856.2 875.6	U-2  T/SEC 538.0 553.3 571.5 625.4 700.7 778.3 836.8 857.0 876.4
% SPAN IN 1 17.720 10 18.350 15 19.070 30 21.140 50 23.970 70 26.790 85 28.860 90 29.570 95 30.240 INCS % SPAN DE GREE [ 5 2.05 10 2.04 15 1.21 30 -1.32 50 -1.61 70 1.71 85 5.99 90 9.79	IN FT/SEC 18.580 905.2 19.110 913.4 19.40 898.9 21.600 861.1 24.200 791.2 26.88c 717.2 28.900 678.2 29.600 664.1 30.27 652.7	FT/SEC FT 573-1 587-9 629-0 599-7 491-4 473-4 TURN CA DEGREE DE 41-19 42-40 38-42 34-48 41-19 43-96 45-88 WC/A-1 T	75EC FT/SEC 558.4 572.9 588.0 586.9 608.8 595.2 647.1 628.2 624.5 598.6 554.8 531.2 466.3 473.2 446.3 473.2 445.6 458.6 496.1 491.2 466.3 2.1080 59.58 2.0295 57.66 1.9473 51.76 1.7559 44.70 1.5475 45.31 1.2873 45.93 1.2559 46.74 1.2273	FT 7582.5 12.5 12.5 12.5 13.5 14.5 14.5 15.5 15.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 16.5 1	35.5.4 35.5.4 35.5.4 25.4 25.4 12.0 8.4 28.7 15.8 28.7 15.8 28.7 15.8 28.7 15.8 28.7 28.7 28.7 28.7 28.7 28.7 28.7 28	EGREE DEGREE 51.92 .0 47.35 5.3 41.25 2.8 37.87 3.3 39.33 1.8 45.40 1.4 46.95 1.0	DEGREE 61 - 19.66 1 - 15.91 3.89 18.46 30.09 1 41.81 7 7 9 18.46 9 19.54 6 9 19.54 6 9 19.54 6 9 19.55 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56 9 19.56	DE GREE ST 43-18 410-24 40-43-40 48-61 59-74 62-14 ETC	/SEC FT/ 592.9 7 619.9 7 619.9 8 659.8 8 659.8 8 6621.0 9 6621.0 9 6621.0 9 67.0 9 67.	SEC FT/SEC F 785.7 199.5 779.9 167.6 787.7 108.9 167.6 164.9 -44.3 195.2 -208.3 195.2 -208.3 195.1 -373.3 195.1 -373.3 196.7 -383.7 1981.6 -398.7 1981.6 -398.7 1981.6 -8192 7755 .8213 1981.6 -7732 1991.9 1992 1991.9 1992 1992.9 1992 1993.9 1992 1994.9 1992	T/SEC.6 -537.6 -514.9 -5514.9 -665.8 -845.9 -845.9 -845.9 -845.9 -845.9 -9103.0 -5524327 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -42567 -425	75EC F 513-1 513-1 5552-1 694-0 775-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-6 875-	Type 1

#### Blade-Element and Overall Performance with Stator-Hub Slit Suction

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ROTOR
                                                                                                                                   95% of Design Speed
                 DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 U-2 IN IN FI/SEC FI/SEC
SPAN IN
                                                                                                                                       . 844.9
                13,120 16,030 617,7 1082,2 617,7 676,1
14,100 16,790 628,8 1065,7 628,8 678,7
15,170 17,580 644,4 1032,7 644,4 687,5
                                                                                                                                       0 821.5
0 770.2
                                                                                                                                                                      00 50.43 34.50 -24.30 763.1 745.2 -432.3 3.6.8 432.3 514.8 0.00 46.23 35.81 -18.56 794.8 726.3 -465.1 231.2 465.1 539.0 0.0 42.68 39.40 -2.35 882.5 695.2 -560.5 29.0 560.5 610.4
                                                                                                                                        .0 639.5
                 18.280 19.910 681.5 942.8 681.5 692.5
                                                                                                                                                                      .00 39.42 44.14 15.97 976.7 666.0 -680.3 -182.4

.00 41.4 52.40 31.39 1002.1 638.3 -793.5 -331.9

-00 44.58 58.16 41.17 1026.8 626.8 -872.3 -412.4

.00 47.70 59.20 45.04 1046.6 608.6 -898.9 -429.9

.00 49.53 59.83 48.37 1069.2 696.6 -924.4 -453.3
                                                                                                                                       0 525.5
0 473.2
                  22.190 23.090 700.6 827.5 700.6 639.1
                                                                                                                                                                                                                                                                                                                   680.3 707.9
793.5 805.1
     70
                  25.880 26.260 610.8 720.9 610.8 543.9
                28.450 28.610 541.5 662.3 541.5 471.8
29.320 29.410 535.9 638.7 535.9 430.0
39.150 30.180 537.3 620.5 537.3 402.7
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                    INCS INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ EFF-P EFF-AD OMEGA-B
                                                                                                                                                                                                                                                                                                                      M*-1
                                                                                                                                                                                                                                                                                                                                       M1-2
                    SPAN DEGREE DEGREE DEGREE DEGREE DEGREE
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                                                                                                                                                                                                                                                                                                                    .6825
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                                                          6.84 58.83 66.00 2.2876 .2792
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                                   -18 8.32 54.37 62.88 2.1592 3269 1366 .0300 .0300 1.4861 .9051 .8998

-19 11.35 41.75 53.19 1.9063 .4101 .0601 .015 .0157 1.4779 .9468 .9438

.55 11.37 28.17 39.01 1.6920 .4802 .0801 .0228 .0228 1.4343 .9140 .9096
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                  -6,48
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                    ~4.45
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                     1-11 5.34 11-23 21-01 26.90 1.5353 .5178 .0298 .0083 1.4770 .9662 .9643 .0000 .5662 .6335 4.96 8.63 11-20 16.99 19.68 1.4423 .5469 .349 .0091 .0091 1.5135 .9625 .9603 .0000 .4940 .5760 5.05 8.55 12-71 14-16 18-28 1.4148 .5781 .0896 .0224 .0224 1.5017 .9071 .9017 .0000 .4914 .5528
                                                                                                                                                                                                                                                                                                                                    ,56<sub>0</sub>9
                    _1.11_
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     R5
                                                                                                                                                                                                                                                                                                                  .9621 .5267
                     4+70 8-13 14-22 11-46 17-51 1-3888 +5917 +1273 +0304 10488 +8665 +8589 +0000 +4927 +5352 +9818 +5232
                                                                                                                                                                                                                                                                          STATE STATE SEGNET HEGREE
                                   NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P
                                                                                                                                                                                                                                                                                                               86.05 95.92
                                   7025 17 .55 39.64 1.1266 1.4685 91.664 92.19
                                                                                                                                                                                                                                                                                                   6.ù
  STATOR
                  DIA-1 DIA-2 V-1 V-2 VV-1 VM-2 V0-1 V0-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 V0'-1 V0'-2 U-1 U-2 IN IN FT SEC FT/SEC FT/SEC
 % SPAN IN IN
                  17.720 18.580 983.9 620.4 622.1 620.2 762.3 18.350 19.110 994.6 640.4 650.4 639.2 752.5 19.070 19.740 983.2 656.4 676.1 654.4 713.4 21.140 21.600 941.7 687.8 722.2 686.9 603.9
                                                                                                                                                                                                          3.47 42.35 725.9 929.7 -44.2 -626.4 648.1 662.2
17.96 46.68 740.4 965.1 -227.9 -702.0 734.9 742.0
                                                                                                                                                                                         2.98
                                                                                                                                                      35.8 39.88
                 23.976 24.200 867.0 663.0 703.3 661.8 507.0 39.9 35.78 3.45 17.96 46.68 740.4 965.1 -227.9 -702.0 734.9 742.0 26.790 26.880 779.5 589.3 627.6 588.7 462.3 26.6 36.39 2.58 29.77 53.54 723.8 991.7 -359.0 -797.5 821.4 824.1 28.860 28.900 733.7 546.0 573.4 545.8 457.5 17.8 38.60 1.87 36.70 57.84 715.3 1025.7 -427.3 -868.2 884.8 886.1 29.570 29.600 715.2 522.2 542.3 522.0 465.9 12.8 40.69 1.39 39.12 59.73 699.0 1036.1 -440.7 -894.7 906.6 907.5 30.240 30.270 700.5 502.0 519.1 501.9 470.3 5.4 42.18 .61 41.35 61.45 691.6 1050.4 -456.8 -922.7 927.1 926.1
                                        INCM DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P PO2/ OMEGA-BEFF-AD EFF-P
                                                                                                                                                                                                                                                                                                    M-2
                                                                                                                                                                                                                                                                                                                       M*-1
                                                                                                                                                                                                                                                                                                                                         M1-2
                                                                                                                                                                   TOTAL PROFILE POI SHOCK TOTAL STATIC .0313 .0313 .9468 .0000 .0000 .8207
                DEGREE DEGREE DEGREE DEGREE
                       1.06
                                         5.01 16.74 50.54 62.54 2.1076
                                                                                                                                 .5482
                                                                                                                                                 .1320
                                                                                                                                                                                                                                                                                  .8937 .5367 .b015 .7269
                                                                                                                                                                     .0406 .0406 .9325 .0000 .0000 .7799
                       1.23
                                                        19.30 45.83 59.59 2.0287 .5293 .1649
                                                                                                                                                                                                                                                                                 .8990 .5545 .6154 .7294
                                         4.64 19.99 41.99 57.09 1.9462
2.06 17.00 36.90 51.78 1.7525
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                                                                                                                                 •4394
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5798
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                                         1.80 14.20 32.33 44.74 1.5485
                                                                                                                                .4081 .0443
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                                                                                                                                 4451 .0670
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.0372 .0372
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                                         4.93 15.47 33.81 44.32 1.3871
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                                                                                                                                                                                                                                                                                   .6903 .5113 .6405
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                                                                                                                                                 .0959
                                                                                                                                                                                                                                             .0000
                       1.71 8.20 16.92 36.73 45.32 1.2870 .4884 .0959 .0372 .0372 .9767 .0000 .0000 .8192 3.66 10.25 17.10 39.30 45.95 1.2557 .5221 .1086 .0432 .0432 .9749 .0000 .0000 .8064
                                                                                                                                                                                                                                                                                                    .4703
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                                                                                                                                                                                                                                                                                  .6258
                                                                                                                                                                                                                                                                                                    .4478 .6118
                      5-02 11-76 16-94 41-56 46-75 1-2273 -5537 -1200 00489 10489 19734 10000 10000 17844 16098 14288 1000
                                                                                                                                                                                                                                                                                                                                        ,8974
                                                                                                                                                                                                                                                                             STA-1 STA-2 SHANEE BEAREE
                                     NEAR-TAMORETILAMINET 1881 B821 EFETAD EFETP
                                     7025 174.56 39.44 1.1266 1.4267 84.429 85.26
                                                                                                                                                                                                                                                                                              12.0 90.00 90.00
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DIA-1 DIA-2 V-1 V-2 VN-1 VN-2 VO-1 VO-2 B-1 B-2 B'-1 B'-2 V'-1 V'-2 VO'-1 VC'-2 U-1 U-2
ASPAN IN IN FT/SEC 0 838.1 .00 51.79 33.97 -27.70 720.2 745.3 -402.4 346.5 402.4 491.7 13.120 16.030 597.3 1066.7 507.3 659.8 .0c 50.81 35.16 -24.16 750.9 726.3 -432.5 297.4 432.5 515.0 .0c 48.61 36.46 -18.28 782.9 706.8 -465.3 221.7 465.3 539.2 14.100 16.790 613.8 1048.1 613.8 662.2 .0 812.3 15.170 17.580 629.6 1014.2 629.6 670.2 .0 760.9 .01 43.39 40.11 -2.27 869.9 676.7 -560.7 27.3 560.7 610.7 18.280 19.910 664.9 928.3 664.9 674.2 .0 638.0 00 40.54 44.93 15.98 963.6 646.7 -680.6 -177.3 580.6 708.2 0.0 42.87 53.31 31.12 990.4 615.7 -793.8 -317.4 793.8 805.4 0 530.9 0 488.0 0 487.2 0 495.0 22.190 23.090 681.9 816.7 681.9 620.6 25.880 26.260 591.1 717.6 531.1 526.0 70 .00 47.17 58.99 40.84 1018.2 597.2 -372.6 -390.3 873.6 877.5 28.450 28.610 524.5 664.5 524.5 451.7 29.320 29.410 519.3 646.8 519.3 415.8 30.150 30.180 520.9 632.7 520.9 393.6 .0c 50.q0 59.99 44.42 1038.5 582.3 -899.3 -407.0 809.3 902.0 .00 51,54 60.61 47.53 1061.4 583.2 -924.7 -430.2 924.7 .0 495.4 INCS INCH DEV TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P POZ/ EFF-P EFF-AD OMEGA-B M-1 M-2
\*SPAN DEGREE DEGREE DEGREE DEGREE
TOTAL PROFILE POI TOTAL SHOCK M1-1 .2282 .2447 .0445 .0445 1.4508 .8556 .6849 -7.05 --14 9.28 61.67 71.12 2.4331 .8479 .0000 .5521 .9802 .6664 .6972 .6646 .5689 +9590 -6.35 7.00 59.32 66.03 2.2862 .2298 .1711 .0341 .0341 1.4827 .8932 .6871 10 • 31 .0000 .3387 .1249 .0275 .0275 1.4858 .9146 .9098 .0000 .5840 .9238 .7275 .6438 -5.84 .46 8.61 54.74 62.91 2.1583 .6182 .8371 .8095 -5.07 ·61 11·44 42.38 53·21 1·9056 .4224 .0536 ·0141 .0141 1.4810 .9534 .9508 .0000 .6101 30 4949 • 6794 5402 • 0375 .0226 .0226 1.4415 .9175 .0109 .0105 1.4907 .9600 6.28 11.36 28.95 39.01 1.6916 10.96 22.20 26.90 1.5352 .9132 .0000 .9577 .0000 6345 5444 .897g -3.65 ,7266 .6292 2.05 70 .0000 4777 9-45 10-87 18-15 19-68 1-4425 .5798 -0563 -0148 .0148 1-5295 ,9438 .9404 .0000 5763 .9339 .5180 5.78 9.34 12.10 15.57 18.29 1.4148 .6080 .1041 .0263 .0263 1.5238 .8979 8.91 13.38 13.07 17.51 1.3888 .6186 .1361 .0331 .0331 1.5157 .8649 .4756 .5585 .9532 .8917 .000n .5028 5.34 90 .4770 .8569 ,0000 .5020 . 5446 .9730 STA-1 STA-2 SLANT-1 SLANT-2 NCOR-1 WCOR-1 WC/A-1 TO2/ PO2/ EFF-AD EFF-P DEGREE DEGREE RPM LBM/SEC LBM/SEC TO: P01 SOFT 702.9 171.32 38.71 1.1289 1.4788 91.734 92.28 6.0 86.05 95.02 STATOR DIA-1 DIA-2 V-1 V-2 VM-1 VM-2 V0-1 V0-2 8-1 B-2 B-1 B-2 V1-1 V0-2 V0-1 V0-2 U-1 U-2
\*SPAN IN IN FT/SEC FT/S .05 -19.38 43.36 640.8 829.0 212.7 -569.1 543.5 569.9 3.77 -16.04 41.42 557.4 824.2 181.6 -545.3 562.8 586.1 17.720 18.560 968.1 603.0 604.5 602.7 756.1 .8 51.36 40.9 49.68 18.350 19.110 976.3 619.5 631.6 618.0 744.4 5.08 -10.42 41.18 666.4 834.7 120.0 -549.6 584.9 605.5 19.070 19.740 962.4 630.7 654.7 628.2 704.9 55.9 47.1 2.99 3.73 43.27 702.7 915.6 -46.1 -627.7 648.4 662.5 21.140 21.600 923.6 667.4 699.9 666.5 602.3 34.8 40.70 3.62 18.17 47.54 717.7 951.2 -223.4 -701.7 2.86 29.68 54.24 698.9 990.8 -345.7 -795.8 23.970 24.200 851.9 643.1 681.0 26.790 26.880 771.2 573.4 606.7 735.2 742.2 641.9 511.8 40.6 36.92 672.7 476.0 28.6 38.13 28.860 28.900 730.3 532.1 550.8 531.7 478.3 18.7 41.04 2.01 36.39 58.50 684.4 1017.8 -405.9 -867.7 A85.2 886.4 12.4 43.03 1.37 38.01 60.12 670.5 1032.8 -413.1 -895.5 4.0 44.34 .46 40.65 61.58 666.0 1051.1 -433.8 -924.4 29.570 29.600 716.7 514.5 523.9 514.3 488.8 30.240 30.270 706.3 50c.2 505.2 500.2 493.7 906.9 907.9 928.4 TURN CAMBER SOLIDTY D-FAC OMEGA-B LOSS-P LOSS-P POZ/ OMEGA-BEFF-AD EFF-P M'-1 INCM DEV TOTAL PROFILE POI SHOCK TOTAL STATIC SPAN DEGREE DEGREE DEG. EE DEGREE DEGREE 1.61 5.57 16.54 51.31 62.53 2.1079 .5578 .1318 .0313 .0313 .9482 .0000 .0000 .8228 .8772 .5210 .5=31 .7164 .8799 .5357 5249 .7128 6.03 19.73 45.91 59.58 2.0292 .5390 .1654 .0407 .0407 .9342 .0000 .0000 .7819 1.77 .0397 -9396 .0000 6 - 39 5.27 20.53 42.02 57.07 1.9470 .5143 -1553 -0397 .0000 .7880 8669 .5466 .7235 .0233 +9702 .0000 .5823 .6734 .7989 -1.89 2.92 17.00 37.71 51.76 1.7535 .4503 .6817 .8309 .0000 .8650 •0233 2.94 14.37 33.30 44.73 1.5489 .4225 .0421 .0136 6.64 15.75 35.27 44.31 1.3873 .4652 .0722 .0260 0136 9866 1000 0260 9808 0000 .7613 .5610 .6814 .4959 .8297 2.94 .6:14 -2.56 54 •0000 •9198 .6.69 .0000 .8644 .0260 .0435 .9733 .0000 .4564 .5091 .8731 4.11 10.59 17.07 39.02 45.32 1.2871 .5163 .1115 .0433 .0000 .8012 .6396 .4397 ·1255 ·0499 .0499 ·9711 · 088 ·0000 •7851 .5451 .8825 5.98 12.56 17.08 41.66 45.94 1.2557 .5467 .6250 .5767 .8950 .0561 .064 .9692 .2000 . 4259 13.94 16.79 43.88 46.75 1.2273 .5741 .0000 .7584 .6132 .1376 STA-1 STA-2 SLANT-1 SLANT-2 NCOR-1 WCCR-1 WC/A-1 TU2/ PO2/ EFF-AD EFF-P DEGREE DEGREE RPM LBM/SEC LBM/SEC TO: POI 90.00 90.00 171.32 38.71 1.1289 1.4365 84.573 85.46 12.0 11.0

Blade-Element and Overall Performance with Stator-Hub Slit Suction 95% of Design Speed

							95% C	or Des	ign Sp	eea								
	DIA-1	DIA-2	V-1	V-2	VM-1	VM-2	V0-1	VU-2	B-1	B-2	B'-1	B * ~ 2	V 1 - 1	V · -2	VO'-1	V0 • - 2	U-1	U <b>~</b> 2
% SPAN		IN F	T/SEC F	T/SEC F	T/SEC !	FI/SEC F	T/SEC 1					DEGREE						TISEC
5 10		16.030		1057-0	582.5	647.1	• 0	835.8	•00			-28.05						491.0
15		16.790		1037.7		650 • 5	•0	808.4	•00	51.17		-24.30			-431.9	294.2	431.9	514.3
30		17.580		919.7	615.8	658 <sub>•3</sub>	0		•00	43.98		-18.37	771.4		-464,6	218.8	464.6	538.4
50		23.090	665.3	809.4	665.3	607.0	•0	535.5	•00	41.41	45.59	-2.46 15.84	857.5 951.2		-559.9 -679.6	29.1	559.9 679.6	609.8 707.2
70		26.260		712.4	575.0	514.0	.0	493.2	•00	43.84	54.03		980.0		<b>-792.7</b>		792.7	804.3
85		28,610		650.6	507.1	430.9	•0	493.7	•00	48.37			1008.3		-871.4		871.4	876.3
90		29.410		642.4					.00	51.35			1028.7		-898.0			900.8
95		30 . 181		627.2			0	501.3	•00	53.06	61.40		1051.8					924.4
	INCS	INCM	DEV	TURN C	AMBER S	YTGIJOE	D-FAC	OMEGA-B	LOSS-P	LUSS-P	PC2/	EFF-P' 6	FF-AD	DMEGA-B	M-1	M-2	M'-1	M1-2
	DEGREE 1		EGREE D	EGREE D	EGREE			·	TOTAL	PROFILE	PO1	TOTAL "	OTAL SI	HOCK			<u> </u>	
5	-6.42	.49	8.96			2.4329	.2307	-2321	.0421		1.4558		.8598	.0000	.5379	.9699	•6542	.6729
10	-5.78	. 68	6.87	60.04		2.2858	.2937	.1619	•0323		1.4845		8955	.0000		.9482	•686p	.6527
15	-5.26	1.02	8.54	55.39		2.1580	3437	1181	•0260		1.4862		•9162	.0000		-0129	.7164	.6316
30	-4,44	1.23	11.25	43.20		1.9051	4294	.0493	•0129		1.4839		•9557	•0000		.6282	.7973	,5976
50	-2.98	2.01	11.22	29.76		1.6914	.5052	0807	•0230		1 - 4457		•9142	•0000		•7191	.8850	.5614
70 85	2,80 6,62	7.03	11.04	22,83 18.71		1.5351	•551 <u>0</u>	.0416	•0116 •0163		1.5339	•9571 •9397	•9546 •9360	•0000		.624 <sub>0</sub>	.9019	.5271
90	6,64	10.15	12.59			1.4148	.6216	.0522	0277		1.5278		•8878	•0000		•554 <sub>1</sub>	9433	.5046 .4888
95	6.36			13,12			.6328	1434	0343			-8610			.4603	.5392	.9631	4873
30	<u> </u>				1,14	1,0000	10060		10343	10040	1.071	.0010	10021	•0000	, 4000	13372	* >0.01	*4013
		NCOR-1	WCOR-1	WC/A-1	702/	P02/	EFF-AD	EFF-P							STA-1 51	74-2 St	ANT-1 9	I ANT-2
				BM/SEC		P01	*	*				,					GREE T	
				QFT								,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,					7 <u></u>	
		7019.0	168.54	38.00	1,1296	1,4823	91,856	92.37							5.0	6.0	86.05	95.02
STA	TOR																	
STA		014.0	<b></b>	v 2		<b>.</b> 0	110.4	o		B-2	G+-4	91.0		v. 5		<b>40.5 2</b>		
_	D1A-1	D1A-2	7-1 T/SEC 1	V-2	VM-1	VM-2	V0-1	V0-2	8-1 5-6955	8-2 036855	8*-1	81-2 056855	V:-1		vo*-1		U=1	U=2
STA SSPAN	DIA-1 IN	IN F	T/SEC F	FT/SEC I	FT/SEC	FT/SEC	FT/SEC	FT/SEC	DEGRÉE	DEGREE !	DEGREE	DEGREE	FT/SEC I	FT/SEC	V0'-1 FT/SEC	FT/SEC	FT/SEC	FT/SEC
% SPAN	DIA-1 1N 17,720	18.580	958,4	593.0	591.5	FT/SEC   592.7	FT/SEC 754,1	FT/SEC	DEGREE 51.89	DEGREE	DEGREE	DEGREE 43.90	628.1	FT/SEC 822.7	VO'-1 FT/SEC 211.4	-570.5	FT/SEC 542.7	569.1
% SPAN 5	DIA-1 1N 17,720 18,350	18,580 19,110	7/SEC 1 958.4 965.8	FT/SEC   593.0 608.3	591.5 619.4	592.7 606.8	754.1 740.9	FT/SEC -1.4 40.5	51.89 50.17	02GREE   16 3.81	19.66 -16.11	DEGREE 43.90 41.92	628.1 644.9	822.7 822.7 815.5	V0'-1 FT/SEC 211.4 178.9	-570.5 -544.8	542.7 562.0	569.1 585.3
% SPAN 5 10	DIA-1 1N 17.720 18.350 19.070	18.580 19.110 19.740	958.4 965.8 950.8	593.0 593.0 608.3 618.6	591.5 619.4 641.4	FT/SEC 592.7 606.8 616.0	754.1 754.1 740.9 701.5	FT/SEC -1.4 40.5 57.4	DEGREE 51.89 50.10 47.56	02GREE   16 3.81 5.32	DEGREE ~19.66 ~16.11 -10.41	DEGREE 43.90 41.92 41.61	628.1 644.9 652.8	822.7 822.7 815.5 824.0	V0'-1 FT/SEC 211.4 178.9 117.5	-570.5 -544.8 -547.2	542.7 562.0 584.1	569.1 585.3 604.6
% SPAN 5 10 15	DIA-1 IN 17,720 18,350 19,070 21,140	18,580 19,110	958.4 965.8 950.8	593.0 593.0 608.3 618.6 657.1	591.5 619.4 641.4 685.4	592.7 606.8 616.0 656.1	754.1 754.1 740.9 701.5 603.0	FT/SEC -1.4 40.5 57.4 36.5	51.89 50.19 47.56	02GREE 16 3.81 5.32 3.19	719.66 716.11 710.41 73.66	DEGREE 43.90 41.92 41.61 43.60	628.1 644.9 652.8 688.2	822.7 822.7 815.5 824.0 906.2	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5	-570.5 -570.5 -544.8 -547.2 -625.0	542.7 542.7 562.0 584.1 647.5	569.1 585.3 604.6 661.6
% SPAN 5 10 15 30	DIA-1 IN 17,720 18.350 19,070 21,140 23,970	IN F 18.580 19.110 19.740 21.600	958.4 965.8 950.8 913.1	593.0 608.3 618.6 657.1 632.1	591.5 619.4 641.4 685.4 664.7	592.7 592.7 606.8 616.0 656.1 630.7	754.1 754.1 740.9 701.5 603.0 516.1	FT/SEC -1.4 40.5 57.4 36.5 42.0	51.89 50.10 47.56 41.32	DEGREE   16 3.81 5.32 3.19 3.81	719.66 716.11 710.41 73.66	DEGREE 43.90 41.92 41.61 43.60 47.94	628.1 644.9 652.8 688.2 700.6	FT/SEC 822.7 815.5 824.0 906.2 941.9	V0'-1 FT/SEC 211.4 178.9 117.5	-570.5 -544.8 -547.2 -625.0 -699.2	FT/SEC 542.7 562.0 584.1 647.5 734.2	569.1 585.3 604.6 661.6 741.2
% SPAN 5 10 15 30 50	DIA-1 1N 17.720 18.350 19.070 21.140 23.970 26.790 28.860	18.580 19.110 19.740 21.600 24.200 26.880 28.900	958.4 955.8 950.8 913.1 841.6 761.7	593.0 593.0 608.3 618.6 657.1 632.1 561.7	591.5 619.4 641.4 685.4 664.7 590.6	592.7 592.7 606.8 616.0 656.1 630.7 560.9 518.4	754.1 740.9 701.5 603.0 516.1 480.9	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5	51.69 50.19 50.19 47.56 41.32 37.62 39.17 42.3?	02GREE  16 3.81 5.32 3.19 3.81 3.11 2.17	79.66 719.66 716.11 710.41 3.66 18.17 29.91	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08	628.1 644.9 652.8 688.2 700.6 682.0	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8	542.7 542.7 562.0 584.1 647.5 734.2 820.5	569.1 569.1 585.3 6,4.6 661.6 741.2 823.3
% SPAN 5 10 15 30 50 70	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	IN F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600	958.4 965.8 950.8 913.1 841.6 761.7 721.0 707.1	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7	591.5 619.4 641.4 685.4 664.7 590.6 532.7	592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5	754.1 740.9 701.5 603.0 516.1 480.9 485.8	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6	51.89 50.17 47.56 41.32 37.82 39.17 42.37	DEGREE  16 3.81 5.32 3.19 3.81 3.11 2.17	719.66 719.66 716.11 710.41 710.41 710.41 710.41 710.41 710.41 710.41 710.41	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08	628.1 628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0	822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.5 -339.6 -398.2 -410.8	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7	569.1 585.3 634.6 661.6 741.2 823.3 885.2 906.6
% SPAN 5 10 15 30 50 70 85	DIA-1 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570	18.580 19.110 19.740 21.600 24.200 26.880 28.900	958.4 955.8 950.8 913.1 841.6 761.7	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7	591.5 619.4 641.4 685.4 664.7 590.6 532.7	592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5	754.1 740.9 701.5 603.0 516.1 480.9 485.8	71.4 40.5 57.4 36.5 42.0 30.5 19.6	51.69 50.19 50.19 47.56 41.32 37.62 39.17 42.3?	DEGREE  16 3.81 5.32 3.19 3.81 3.11 2.17	719.66 719.66 716.11 710.41 710.41 710.41 710.41 710.41 710.41 710.41 710.41	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08	628.1 644.9 652.8 688.2 700.6 682.0 665.2	822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.5 -339.6 -398.2 -410.8	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7	569.1 585.3 634.6 661.6 741.2 823.3 885.2 906.6
% SPAN 5 10 15 30 50 70 86 90	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240	18.580 19.110 19.74 <u>0</u> 21.600 24.200 26.880 28.900 29.500 30.270	958.4 965.8 950.8 913.1 841.6 761.7 721.0 707.5	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7	591.5 619.4 641.4 685.4 664.7 590.6 532.7 484.1	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6	FT/SEC 754.1 740.9 701.5 603.0 516.1 480.9 485.8 494.9	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 19.6 8.1	DEGREE 51.89 50.17 47.56 41.32 37.82 39.17 42.37 44.45 45.90	926REE 16 3.81 5.32 3.19 3.81 3.11 2.17 1.64	79.66 719.66 716.11 710.41 3.66 18.17 29.91 36.78 39.16 41.39	DEGREE 43.90 41.92 41.61 43.60 47.70 59.08 60.14	FT/SEC   628.1 644.9 652.8 688.2 700.6 682.0 665.2 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.4	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2	569.1 585.3 694.6 661.6 741.2 823.3 865.2 906.6 927.1
% SPAN 5 10 15 30 50 70 86 90 95	DIA-1 17,720 18,350 19,070 21,149 23,970 26,790 28,860 29,576 30,240 INCS	IN F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270	958.4 965.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7	591.5 619.4 641.4 685.4 664.7 590.6 532.7 484.1	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6	FT/SEC 754.1 740.9 701.5 603.0 516.1 480.9 485.8 494.9	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 19.6 8.1	DEGREE 51.89 50.17 47.56 41.32 37.82 39.17 42.37 44.45 45.90	25GREE 16 3.81 5.32 3.19 3.81 3.11 2.17 1.64	29.91 3.66 18.17 29.91 30.78 39.18 41.39	DEGREE 43.90 41.92 43.60 47.94 54.70 59.08 60.70 62.14 OMEGA-B	FT/SEC 628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.5 -339.6 -398.2 -410.8	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7	569.1 585.3 634.6 661.6 741.2 823.3 885.2 906.6
% SPAN 5 10 15 50 50 70 86 90 96	DIA-1 17,720 18,350 19,070 21,149 23,970 26,790 28,860 29,570 30,240 INCS DEGREE	IN F 18.580 19.110 19.740 21.600 24.200 26.880 28.900 29.600 30.270 INCM DEGREE E	958.4 965.8 965.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV	593.0 698.3 618.6 657.1 561.7 518.8 500.7 485.7	591.5 619.4 685.4 685.4 685.7 590.6 532.7 504.7 484.1 CAMBER DEGREE	FT/SEC 592.7 606.8 616.0 656.1 560.9 518.4 500.5 485.6	754.1 754.1 740.9 701.5 603.0 548.9 485.5 494.9 499.4	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1	DEGREE 51.89 50.17 47.56 41.32 37.82 39.17 42.37 44.45 45.90 LCSS-P	25GREE 16 3.81 5.32 3.19 3.81 3.11 2.17 1.64 .96	719.66 719.66 716.11 73.66 73.67 729.91 730.78 79.16 41.39	DEGREE 43.90 41.92 43.60 47.64 54.70 59.08 60.70 62.14 OMEGA-B	FT/SEC 628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 91.5 1009.0 1023.1 1039.4 EFF-P	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -339.6 -339.6 -410.8 M-1	FT/SEC -570.5 -544.8 -547.2 -625.0 -792.8 -865.5 -892.1 -919.0	FT/SEC 542.7 562.0 584.1 647.5 734.5 883.9 905.7 926.2 M'-1	FT/SEC 569.1 585.3 6,4.6 661.6 741.2 823.3 885.2 906.6 927.1
% SPAN 5 10 15 50 50 70 86 90 95 % SPAN 6	DIA-1 1N 17.720 18.350 19.070 21.149 23.970 26.790 28.860 30.240 INCS DEGREE 2.10	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM DEGREE [	958.4 965.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE 1 16.34	52.05 593.0 608.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN (DEGREE (DE	591.5 619.4 685.4 685.4 590.6 532.7 594.7 484.1 CAMBER DEGREE 62.53	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY	FT/SEC 754.1 740.9 701.5 603.0 516.1 480.9 485.8 494.9 499.4 D-FAC	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 8.1 0MEGA-B	DEGREE 51.89 50.17 47.56 41.32 37.82 37.17 42.37 44.45 45.90 LCSS-P TOTAL	226REE 16 3.81 5.32 3.19 3.81 3.11 2.17 1.64 .96	719.66 719.66 716.11 73.66 18.17 29.91 36.78 39.16 41.39 P02/ P01 S	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08 60.70 62.14 OMEGA-B	628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4 EFF-AD 70TAL	FT/SEC 822.7 815.5 824.0 906.2 911.9 971.5 1009.0 1023.1 1039.4 EFF-P STATIC 8226	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 M-1	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1	FT/SEC 569.1 585.3 694.6 661.6 741.2 823.3 865.2 906.6 927.1 M*-2
% SPAN 5 10 15 50 50 70 86 90 95	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM DEGREE C 6.06 6.46	958.4 958.8 950.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE 16.54 19.76	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 52.05 46.29	591.5 619.4 685.4 685.7 590.6 532.7 504.1 CAMBER DEGREE 62.53 59.50	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293	FT/SEC 754.1 740.9 701.5 603.0 516.1 480.9 485.8 499.4 D-FAC	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 8.1 OMEGA-8	DEGREE 51.89 50.17 47.56 41.32 37.82 39.17 42.35 44.45 90 LCSS-P TOTAL .0315	256REE 16 3.81 5.32 3.19 3.81 3.11 2.17 1.64 96 LOSS-P PROFILE .0315	DEGREE -19-66 -16-11 -10-41 -3-66 -18-17 -29-91 -36-78 -39-16 -41-39 -902/ -91-5	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08 60.70 62.14 OMEGA-B HOCK	FT/SEC 628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.2 651.4 EFF-AD TOTAL .0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P STATIC .8226 .7810	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 -426.8 M-1	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.2 M'-1 .5712	585.3 694.6 661.6 741.2 823.3 885.2 906.6 927.1 H*-2
% SPAN 5 10 15 30 50 70 86 90 95 % SPAN 6 10	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 29.570 30.240 INCS DEGREE 2.10 2.20 1.41	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM DEGREE 0 6.06 6.74	958.4 958.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE 1 16.34 19.77	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 1 52.05 42.24	591.5 619.4 685.4 685.4 664.7 590.6 532.7 504.7 484.1 CAMBER DEGREE 62.53 59.07	592.7 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.9472	FT/SEC 754.1 740.9 701.5 603.0 516.1 485.8 494.9 499.4 D-FAC .5638 .5447 .5197	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 OMEGA-8	DEGREE 51.89 50.10 47.56 41.32 37.82 39.17 42.37 44.45 45.90 LOSS-P TOTAL .0315 .0399	256REE   -166   3.81   5.32   3.19   3.81   2.17   1.64   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .96   .9	DEGREE -19-66 -16-11 -10-4 3-66 18-17 29-9 30-78 39-16 41-39 PO2/ PO1/ 9346 -9408	DEGREE 43.90 41.61 43.60 47.94 54.70 59.08 60.70 62.14 OMEGA-B HOCK .0000 .2000	628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4 EFF-AD TOTAL .0000 .0000	FT/SEC 822.7 815.7 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P STATIC .7875	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 -426.8 M-1 .8673 .8690 .8553	FT/SEC -570.5 -544.6 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1 .5712 .5826	FT/SEC 569-1 585-3 694-6 661-6 741-2 823-3 885-2 906-6 927-1 M*-2 .7105 .7048 .7136
% SPAN 5 10 15 30 50 70 86 90 96 % SPAN 5 10	DIA-1 IN 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM DEGREE DEGREE D	958.4 958.4 950.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE (16.34 19.76 20.77 17.20	52.05 593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 1 52.05 46.29 42.24 38.13	591.5 619.4 685.4 685.4 664.7 590.6 532.7 484.1 CAMBER 62.53 59.50 57.57	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.9472 1.7536	FT/SEC 754.1 740.7 701.5 603.0 516.1 480.9 499.4 D-FAC .5638 .5447 .5197	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 0MEGA=8	DEGREE 51.89 50.10 47.56 41.32 37.82 39.17 44.45 45.90 LOSS-P TOTAL .0319 .0339	256REE 16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 055-P PROFILE .0315 .0410 .0359	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -9487 -9487 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14 OMEGA-B HOCK	FT/SEC   628.1 644.9 652.8 688.2 700.6 65.2 651.0 645.4   FF-AD TOTAL .0000 .0000 .0000 .0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 941.9 1009.0 1023.1 1039.4 EFF-P STATIC .8226 .7810 .7875 .8649	V0'-1 FT/SEC 211.4 178.9 117.5 -248.0 -339.6 -398.2 -410.8 M-1 .8673 .8690 .8553	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -855.5 -892.1 -919.0 4-2 -5121 -5258 -5358	FT/SEC 542.7 562.0 584.1 647.5 734.2 823.9 905.7 926.2 M'-1 .5712 .5826 .5905	FT/SEC 569.1 585.3 694.6 661.6 741.2 823.3 885.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899
% SPAN 5 10 15 50 50 70 86 90 95 % SPAN 5 10 15 30 50	DIA-1 1N 17.720 18.350 19.070 21.149 23.970 26.790 28.860 JNCS DEGREE 2.10 2.20 1.41 -1.25 -1.66	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM DEGREE 6.06 6.46 5.74 3.55 3.84	958.4 958.4 950.8 950.8 913.1 841.6 761.7 721.0 707.1 695.5 DEV DEGREE ( 16.34 19.76 20.77 17.20	57.50 618.6 657.1 632.1 632.1 518.8 500.7 485.7 TURN DEGREE 52.05 46.29 42.24 38.13	FT/SEC 591.5 611.4 685.4 685.4 685.7 590.6 532.7 504.7 484.1 CAMBER DEGREE 52.50 57.07 51.76	FT/SEC 592.7 506.8 616.0 656.1 630.7 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.7536 1.5488	FT/SEC 754,1 740,9 701,5 603.0 516.1 480,9 485.8 494.9 499,4 D-FAC .5638 .5447 .5197 .4296	FT/SEC 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 OMEGA=8 .1326 .1667 .1561 .0818 .0463	DEGREE 51.89 50.13 47.56 41.32 37.82 37.82 39.17 42.37 44.45 45.90 LOSS-P TOTAL .0319 .0399 .0233	256REE   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16   -16	DEGREE -19.66 -16-11 -10-41 -3.66 -18-17 -29-91 -36-76 -39-16 -41.39 -92-5 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08 60.70 0MEGA-B HOCK .0000 .0000 .0000	FT/SEC   628.1   644.9   652.8   688.2   700.6   655.2   655.0   645.4   70TAL   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000 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  0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   0000   00000   00000   00000   00000   00000   00000   00000   00000   0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF- .8226 .7810 .7875 .8649 .9125	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -339.6 -398.2 -410.8 M-1 .8673 .8690 .8553 .7506	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 .5121 .5258 .5328 .5506	FT/SEC 542.7 582.0 584.1 647.5 734.2 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249	FT/SEC 569-1 585-3 694-6 661-6 741-2 823-3 885-2 906-6 927-1 M*-2 -7105 -7048 -7136 -7899 -8203
% SPAN 5 10 15 50 50 70 86 90 95  % SPAN 6 10 15 30 50 70	DIA-1 IN 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25	IN 18.580 19.110 19.74 21.600 24.200 26.880 28.900 30.270 INCM DEGREE ( 6.06 5.74 3.55 3.85 4.68	958.4 958.4 950.8 950.8 913.1 841.6 707.7 721.0 707.1 635.5 DEV 16.34 19.76 20.77 17.20 14.55 16.90	593.0 698.6 618.6 657.1 632.1 532.1 518.8 500.7 485.7 TURN DEGREE ( 52.05 42.24 38.13 38.13 34.01	591.5 619.4 685.4 685.4 664.7 590.6 532.7 504.7 484.1 CAMBER CORE 62.53 57.07 51.76 44.72	FT/SEC 592.7 596.8 616.0 656.1 630.7 500.5 485.6 SOLIDTY 2.1079 2.1079 2.1079 2.1079 1.5488 1.3872	FT/SEC 754,1 740,9 701,5 603.0 516.1 480,9 485.8 494,9 499,4 D-FAC .5638 .5447 .5197 .4254 .4753	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 24.5 8.1 0MEGA-8 .1326 .1561 .0818 .0861	DEGREE 51.89 50.17 47.56 41.32 37.82 39.17 42.37 44.45 45.90 LCSS-P TOTAL .0317 .0399 .0233 .0310	256REE   -16   3.81   5.32   3.19   3.81   2.17   1.64   .96   .96   .96   .95   .96   .99   .0315   .0399   .0233   .0149   .0210	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.76 -39.16 -41.35 -903 -903 -903 -903 -903 -903 -903 -903	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08 60.70 62.14 OMEGA-B HOCK .0000 .0000 .0000 .0000	628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P STATIC .826 .7875 .8649 .9125 .8397	V0'-1 FT/SEC 211.4 178.9 117.5 -44.5 -218.0 -339.2 -410.8 -426.8 M-1 .8673 .8690 .8553 .8203 .7506 .6718	FT/SEC -570.5 -544.8 -544.2 -025.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 .5258 .5358 .5506 .4851	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249	FT/SEC 569.1 585.3 694.6 661.6 741.2 823.3 885.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8203 .8389
% SPAN 5 10 50 50 70 70 96 95 % SPAN 6 10 15 30 50 70 86	DIA-1 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 1.58	IN 18.580 19.110 19.74 21.600 24.200 26.880 28.900 30.270 INCM DEGREE [ 6.06 6.74 3.55 3.84 7.68 11.94	958.4 958.4 950.8 950.8 913.1 841.6 761.7 721.0 707.1 695.5 DEV DEGREE ( 16.34 19.76 20.77 17.20	593.0 698.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE [ 52.05 42.24 38.13 34.01 36.06	FT/SEC 591.5 619.4 685.4 685.4 664.7 590.6 532.7 504.7 484.1 CAMBER DEGREE 62.53 59.57 57.07 51.76 44.72 44.32	FT/SEC 592.7 506.8 616.0 656.1 630.7 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.7536 1.5488	FT/SEC 754,1 740,9 701,5 603.0 516.1 480,9 499,4 D-FAC .5638 .5447 .4249 .4253 .5315	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 0MEGA-B .1326 .1561 .0818 .0463 .0463 .0463	DEGREE 51.89 50.13 47.56 41.32 37.82 37.82 39.17 42.37 44.45 45.90 LOSS-P TOTAL .0319 .0399 .0233	226REE   -166   3.81   5.32   3.19   3.81   3.11   2.17   1.64   .96   .96   .95   .94   .95   .94   .95   .94   .95   .94   .95   .94   .95   .94   .95   .94   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .95   .	DEGREE -19.66 -19.61 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -92/ -901 5 -948 -948 -9707 -985	DEGREE 43.90 41.92 41.61 43.60 47.94 54.70 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000	628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P STATIC .8226 .7875 .8649 .9125 .8127 .7619	V0'-1 FT/SEC 211.4 176.9 117.5 -218.0 -339.6 -398.2 -410.8 M-1 .8673 .8693 .8553 .7506 .6718	FT/SEC -570.5 -544.8 -544.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 .525.8 .5728 .5728 .5506 .4851 .8443	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .6812	FT/SEC 569-1 585-3 694-6 661-6 741-2 823-3 885-2 906-6 927-1 M*-2 .7105 .7048 .7136 .7899 .8203 .8589
% SPAN 5 10 15 30 50 70 86 90 96 % SPAN 5 10 15 30 50 70 70	DIA-1 1N 17.720 18.350 19.070 21.149 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 5.45	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM 0EGREE [ 6.06 6.46 5.74 3.55 3.84 7.88 11.94	958.4 958.4 950.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV EGREE 1 16.34 19.77 17.20 14.55 16.00 17.22	57.50 608.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 52.05 46.29 42.24 38.13 54.01 36.06 42.81	591.5 619.4 685.4 685.4 664.7 590.7 590.7 484.1 CAMBER 62.53 59.50 57.57 44.72 44.32 45.94	FT/SEC 592.7 606.8 616.0 656.1 630.7 500.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.7536 1.5488 1.3872 1.2871 1.2557	FT/SEC 754.1 740.7 701.5 603.0 516.1 480.9 499.4 D-FAC .5638 .5447 .5197 .4549 .4753 .5315	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 0MEGA-8 .1561 .0818 .0463 .0861 .1350	DEGREE 51.89 50.17 47.56 41.32 37.82 37.82 39.17 42.37 44.45 45.90 LCSS-P TOTAL .0317 .0319 .0233 .0149 .0524	25GREE16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 	DEGREE -19.66 -19.61 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -92/ -901 5 -948 -948 -9707 -985	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000	FT/SEC   628.1 644.9 652.8 688.2 700.6 682.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 941.9 941.9 1009.0 1023.1 1039.4 EFF-P STATIC .8226 .7810 .7875 .8649 .9125 .8397 .7619	V0'-1 FT/SEC 211.4 178.9 117.5 -248.0 -339.6 -378.2 -410.8 M-1 .8673 .8553 .8203 .7506 .6718 .6157	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 -5258 -5358 -5728 -5506 -4843 -4271	FT/SEC 542.7 562.0 584.1 647.5 734.2 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .6019 .5673	FT/SEC 569.1 585.3 604.6 661.6 741.2 825.3 805.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8203 .8649 .8727
% SPAN 5 10 50 50 70 70 96 95 % SPAN 6 10 15 30 50 70 86	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 1.58 5.45 7.39	IN 18.580 19.110 19.744 21.600 24.200 26.880 28.900 30.270 INCM 0EGREE [ 6.06 6.46 5.74 3.55 3.84 7.88 11.94	958.4 958.4 950.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE 1 16.34 19.76 17.20 14.55 16.00 17.22 17.35	57.50 608.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 52.05 46.29 42.24 38.13 54.01 36.06 42.81	591.5 619.4 685.4 685.4 664.7 590.7 590.7 484.1 CAMBER 62.53 59.50 57.57 44.72 44.32 45.94	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.9472 1.7536 1.5488 1.2871	FT/SEC 754,1 740,9 701,5 603.0 516.1 480,9 499,4 D-FAC .5638 .5447 .4249 .4253 .5315	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 0MEGA-8 .1561 .0818 .0463 .0861 .1350	DEGREE 51.89 50.19 41.32 47.56 41.32 37.82 39.17 44.45 45.90 LOSS-P TOTAL .0315 .0419 .0524	25GREE16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000	628.1 644.9 652.8 688.2 700.6 682.0 665.2 651.0 645.4 EFF-AD TOTAL .0000 .0000 .0000	FT/SEC 822.7 815.5 824.0 906.2 941.9 941.9 941.9 1009.0 1023.1 1039.4 EFF-P STATIC .8226 .7810 .7875 .8649 .9125 .8397 .7619	V0'-1 FT/SEC 211.4 178.9 117.5 -248.0 -339.6 -378.2 -410.8 M-1 .8673 .8553 .8203 .7506 .6718 .6157	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 -5258 -5358 -5728 -5506 -4843 -4271	FT/SEC 542.7 562.0 584.1 647.5 734.2 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .6019 .5673	FT/SEC 569.1 585.3 604.6 661.6 741.2 825.3 805.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8203 .8649 .8727
% SPAN 5 10 15 30 50 70 86 90 96 % SPAN 5 10 15 30 50 70 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 1.58 5.45 7.39	IN 18.580 19.110 19.74 21.600 24.200 26.880 28.900 30.270 INCM DEGREE 0.06 5.74 3.55 3.848 11.94 13.97 15.48	958.4 958.4 958.8 950.8 913.1 841.6 761.7 721.0 707.1 635.5 DEV DEGREE ( 16.34 20.77 17.20 14.55 16.50 17.22 17.35	57.50 608.3 618.6 657.1 632.1 561.7 518.8 500.7 485.7 TURN DEGREE 52.05 46.29 42.24 38.13 54.01 36.06 42.81	FT/SEC 591.5 619.4 685.4 685.4 664.7 590.6 532.7 504.7 504.7 484.1 CAMBER 62.53 57.07 51.76 44.72 45.32 45.94 46.75	FT/SEC 592.7 606.8 616.0 656.1 630.7 500.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.0293 1.7536 1.5488 1.3872 1.2871 1.2557	FT/SEC 754.1 740.7 701.5 603.0 516.1 480.9 499.4 D-FAC .5638 .5447 .5197 .4549 .4753 .5315	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 OMEGA-8 .1326 .1561 .0818 .0463 .0463 .1350 .1509 .1535	DEGREE 51.89 50.19 41.32 47.56 41.32 37.82 39.17 44.45 45.90 LOSS-P TOTAL .0315 .0419 .0524	25GREE16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000	FT/SEC   628.1 644.9 652.8 688.2 700.6 682.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P 574TIC .826 .7875 .8649 .9125 .8397 .7619 .7191	V0'-1 FT/SEC 211.4 176.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 -426.8 M-1 .8673 .8690 .8553 .8203 .7506 .6718 .6303 .6157	FT/SEC -570.5 -544.8 -544.2 -025.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 .5258 .5358 .5728 .5850 .4851 .4443 .4271	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .5812 .5673	FT/SEC 569.1 585.3 604.6 661.6 741.2 825.3 805.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8203 .8649 .8727
% SPAN 5 10 15 30 50 70 86 90 96 % SPAN 5 10 15 30 50 70 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 1.58 5.45 7.39	IN	958.4 958.8 950.8 913.1 841.6 761.7 721.0 707.1 695.5 DEV DEGREE [16.34 19.76 20.77 17.20 14.55 16.00 17.22 17.32 WCOR-1	FT/SEC 593.0 608.6 657.1 632.1 518.8 500.7 485.7 TURN DEGREE 52.05 46.29 42.24 38.13 36.06 40.20 42.81 44.94	FT/SEC 591.5 619.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 685.4 6	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.1079 2.1079 2.1079 2.1079 1.7536 1.5488 1.5487 1.2871 1.2557 1.2273	754,1 740,9 701,5 603.0 516.1 480,9 485.8 494,9 499,4 D=FAC .5638 .5447 .5197 .4549 .4753 .5315 .5623	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 14.5 8.1 OMEGA-8 .1326 .1561 .0818 .0463 .0463 .1350 .1509 .1535	DEGREE 51.89 50.19 41.32 47.56 41.32 37.82 39.17 44.45 45.90 LOSS-P TOTAL .0315 .0419 .0524	25GREE16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000	FT/SEC   628.1 644.9 652.8 688.2 700.6 682.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P 574TIC .826 .7875 .8649 .9125 .8397 .7619 .7191	V0'-1 FT/SEC 211.4 176.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 -426.8 M-1 .8673 .8690 .8553 .8203 .7506 .6718 .6303 .6157	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 -525.8 -5728 -555.6 -485.1 -4427 -4429 TA-2 S	FT/SEC 542.7 562.0 584.1 647.5 734.2 820.5 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .5812 .5673	FT/SEC 569.1 585.3 694.6 661.6 741.2 823.3 885.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8203 .8549 .8727 .8649 .8727
% SPAN 5 10 15 30 50 70 86 90 96 % SPAN 5 10 15 30 50 70 70	DIA-1 IN 17.720 18.350 19.070 21.140 23.970 26.790 28.860 29.570 30.240 INCS DEGREE 2.10 2.20 1.41 -1.25 -1.66 1.58 5.45 7.39	IN F 18.580 19.110 19.74 21.600 24.200 26.880 28.900 30.270 INCM DEGREE ( 6.06 5.74 3.55 3.84 7.68 11.94 13.97 15.48 NCOR-1 RPM LG	958.4 958.4 958.8 950.8 913.1 841.6 707.7 721.0 707.1 635.5 DEV 16.34 19.76 20.77 17.20 14.55 16.00 17.22 17.35 17.28 WCOR-1	593.0 618.6 618.6 657.1 632.1 518.8 500.7 485.7 TURN DEGREE 52.05 42.24 38.13 34.06 40.80 42.81 44.4 44.4 8M/SEC SGFT	FT/SEC 591.5 619.4 685.4 685.4 685.7 590.6 532.7 504.7 484.1 CAMBER 62.53 57.07 51.76 44.72 45.32 45.32 45.94 46.75	FT/SEC 592.7 606.8 616.0 656.1 630.7 560.9 518.4 500.5 485.6 SOLIDTY 2.1079 2.1079 2.1079 1.9472 1.7536 1.5488 1.2871 1.2273 P02/	FT/SEC 754,1 740,9 701,5 603.0 516.1 480,9 485.8 494,9 499,4 D-FAC .5638 .5447 .5197 .4296 .4753 .5315 .5623 .5893	FT/SEC -1.4 40.5 57.4 36.5 42.0 30.5 19.6 24.5 8.1 0MEGA-8 .1326 .1561 .0818 .0861 .1350 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1509 .1	DEGREE 51.89 50.19 41.32 47.56 41.32 37.82 39.17 44.45 45.90 LOSS-P TOTAL .0315 .0419 .0524	25GREE16 3.81 5.32 3.17 3.81 3.11 2.17 1.64 .96 	DEGREE -19.66 -19.66 -10.41 -10.41 -3.66 -18.17 -29.99 -36.78 -39.16 -41.39 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487 -9487	DEGREE 43.90 41.92 41.61 43.60 47.94 59.08 60.70 62.14  OMEGA-B HOCK .0000 .0000 .0000 .0000 .0000	FT/SEC   628.1 644.9 652.8 688.2 700.6 682.0 645.4	FT/SEC 822.7 815.5 824.0 906.2 941.9 971.5 1009.0 1023.1 1039.4 EFF-P 574TIC .826 .7875 .8649 .9125 .8397 .7619 .7191	V0'-1 FT/SEC 211.4 176.9 117.5 -44.5 -218.0 -339.6 -398.2 -410.8 -426.8 M-1 .8673 .8690 .8553 .8203 .7506 .6718 .6303 .6157	FT/SEC -570.5 -544.8 -547.2 -625.0 -699.2 -792.8 -865.5 -892.1 -919.0 4-2 -5121 -525.8 -5728 -555.6 -485.1 -4427 -4429 TA-2 S	FT/SEC 542.7 562.0 584.1 647.5 734.2 883.9 905.7 926.2 M'-1 .5712 .5826 .5905 .6192 .6249 .6249 .5673 .5580	FT/SEC 569.1 585.3 694.6 661.6 741.2 823.3 885.2 906.6 927.1 M*-2 .7105 .7048 .7136 .7899 .8649 .8649 .8727 .8436 SLANT-2 DEGREE

ROTOR

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#### APPENDIX 5

Flow Distribution and Overall Performance, Circumferential Inlet Distortion.

### Rotor Inlet Circumferential Distributions Disk Probe Station 4 80% Speed

Circumferential						-		_	al Distr		ns	$w\sqrt{\theta}$	$l_{\delta} = 147$	7.35		
Position					Disk Pr		cation 4	t 50	% Speed			,				
. 00161011		25°				<u>55°</u>				_	<u>15°</u>			115°		3.7
% Span	$\frac{P_4/P_0}{}$	$p_4/P_0$	90- 84	<u>v_m</u>	$\frac{P_4/P_0}{}$	$p_4/P_0$	90- B4	$v_{m}$	$\frac{P_4/P_0}{}$	$\frac{P_4/P_0}{}$	90 β4	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$\frac{p_4/P_0}{}$	90- 84	$\frac{\mathbf{v}_{\mathbf{m}}}{\mathbf{v}_{\mathbf{m}}}$
5 (hub)	.958	. 882	98,6	378	.966	.877	100.8	404	.957	. 860	109.4	408	.912	, 843	95.2	371
10	. 968	.877	98.7	411	. 966	. 875	100.8	409	. 958	. 855	107.5	424	.910	.839	95.2	378
15	.976	. 871	97.6	442	. 972	.868	97.7	442	. 953	. 851	107.7	425	.905	, 830	90.9	390
30	.975	. 856	97.0	475	.978	. 853	93.8	488	.948	. 837	105.2	451	, 900	.818	90.8	410
50	.976	. 841	97.4	505	.976	. 841	93.4	508	.927	. 826	102.7	433	. 900	.809	90.8	433
70	.974	. 836	97.3	512	.980	. 832	94.4	532	.912	. 823	101.2	416	. 900	.806	90.8	438
85	. 969	. 835	95.2	508	. 979	. 834	94.4	526	.918	, 824	102.5	425	. 896	. 806	90.8	435
90	.965	. 838	95.2	494	.976	. 834	94.4	522	. 935	. 826	104.2	452	.899	.807	90.8	436
95 (tip)	. 965	. 841	93.1	489	. 972	. 836	94.5	511	.951	. 830	104.2	473	. 897	. 809	90.8	426
MR	, 972	. 846	96.6	491	.976	. 843	94.7	504	. 933	. 832	103.8	435	.900	.813	91.0	424
		145	, <del>-</del>			17	<u>'5°</u>			2	05°			235°		
5 (hub)	. 935	. 846	79.1	411	.956	. 864	76.5	411	.975	.873	77.4	4.28	. 968	.876	86.1	418
10	.931	.841	81.1	417	.962	. 861	79.7	435	.978	. 867	78.9	450	. 965	.870	87.9	427
15	.923	. 835	83.9	417	.971	. 856	82.3	465	.977	.860	78.7	463	. 965	. 864	88.9	440
30	.899	822	88.4	398	.971	. 842	84.1	497	.970	. 847	82.3	482	.970	. 849	89.4	482
50	. 899	.813	88.3	420	.957	. 832	85.9	494	.974	. 831	83.1	522	.971	. 836	90.7	510
70	.897	. 808	89.6	428	.956	. 826	86.7	504	.976	. 823	82.9	541	.976	829	91.4	532
85	.895	.810	89.5	418	.959	. 828	87.8	505	.981	.828	84.2	541	. 977	.831	91.3	531
90	.894	.810	89.5	417	.958	. 829	87.8	502	.979	. 828	84.2	538	.974	. 831	91.3	526
95 (tip)	.895	. 812	86.3	413	. 952	. 832	95.8	484	.979	. 830	84.2	534	. 972	. 834	89.8	516
MR	.902	.817	87.7	417	. 960	.835	85.4	492	. 976	. 836	82.6	516	. 972	. 840	90.3	506
		265	•			29	<u>5°</u>			3	25°			355°		
5 (hub)	. 958	. 876	85.1	393	. 961	. 876	91.0	404	, 979	.880	88.1	431	. 977	.879	89.4	429
10	. 963	,871	85.0	418	.970	.871	90.5	436	. 981	. 873	87.9	451	.979	. 873	89.3	448
15	.968	. 864	85.0	445	.973	.863	90.9	457	.981	. 867	87.8	465	.979	. 867	89.2	462
30	.976	, 845	84.4	499	.976	.847	93.0	498	.981	. 849	87.4	502	.980	.851	88.8	496
50	.980	.831	87.0	536	,978	. 834	93.7	525	. 982	. 832	88.3	536	. 981	. 832	90.0	534
70	. 982	, 823	86.7	554	.975	. 828	93.6	532	,983	. 824	89.9	553	. 983	. 82 5	90.7	551
85	.982	. 826	86.7	547	.970	.829	93.5	523	.984	.828	89.9	54?	.982	. 828	90.7	544
90	.980	.826	86.7	544	.969	.831	93.5	517	.981	.829	89.9	541	.981	.829	90.7	541
95 (tip)	.976	-	-	531				514	.979	. 833	90.6	529	.979	.831	90.7	533
MR		-	-		-										-	
, ,,	, 976 , 978	. 830 . 835	86.8 86.2	531 524	.968 .974	. 832 . 838	91.4 93.0	514 510	. 979 . 982	. 833 . 838	90.6 88.9	529 526	.979 .981	.831 .838	90.7 90.1	533 523

<sup>1)</sup> Test environment:  $P_o$  = 1989 psfa, To = 499.6°R 2)  $V_m$  calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant 5)  $\beta_4^a = \tan^{-1} [\tan \beta_4/\cos \epsilon]$ 

Circumferential

Rotor Inlet Circumfer	ential Distributions	$W\sqrt{\theta}/\delta = 136.69$
Disk Probe Station 4	80% Speed	W V 0 10 2000

Position	CHUIT			D	isk Pro			80	% Speed				7		_	
1 OBITION		<u>25</u> °	•			<u>55°</u>	•			_8	<u>5°</u>			1	15°	
% Span	$P_4/P_0$	P <sub>4</sub> /P <sub>0</sub>	90- 8-4	Vm	$\frac{P_4/P_0}{}$	$\frac{P_4/P_0}{}$	90- β°4	Vm	$\frac{P_4/P_0}{}$	$\frac{p_4/P_0}{}$	90- β*4	Vm	P <sub>4</sub> /P <sub>0</sub>	$\frac{\mathbf{p_4/P_0}}{}$	90- 6°4	Vm
5 (hub)	.965	.905	100.5	330	. 973	. 898	101.8	368	.965	. 884	110.7	367	.929	. 865	97.1	351
10	.970	. 902	100.6	350	.970	.895	101.8	369	.968	. 879	109.6	<b>3</b> 88	.926	.862	97.1	351
15	.976	. 898	100.6	377	. 976	.889	98.6	402	.966	.876	109.7	390	.920	.856	92.6	358
30	.981	. 885	98.6	421	.981	.877	94.7	443	. 960	. 864	107.1	410	.913	.845	92.5	369
50	.981	. 875	98.6	443	.980	. 869	94.5	458	.950	. 858	105.4	408	.913	.837	92.4	390
70	.979	. 870	98.6	449	.982	.858	94.2	484	. 939	. 857	105.3	387	.912	. 833	92.4	397
85	.974	.871	96.9	440	.982	. 862	94.7	475	.943	. 859	105.3	392	.911	. 834	92.4	394
90	.973	. 872	96.9	435	.980	. 863	94.8	471	. 954	. 859	105, 3	414	.911	. 835	92.4	392
95 (tip)	.968	.874	96.8	420	.976	. 865	94.9	458	.965	. 864	105.3	424	.911	.837	92.4	386
MR	.977	.878	98.4	429	.980	. 869	95.2	456	.952	. 863	106.3	401	.914	. 840	92.7	384
		145	<u>5°</u>			175	<u>;•</u>			2	05°			<u>2</u> :	<u>35°</u>	
5 (hub)	,940	. 868	80.4	369	.959	. 883	76.7	371	.978	. 891	76.4	392	.973	. 895	84.8	383
10	. 937	. 862	81.8	380	. 967	. 878	78.9	404	.982	. 887	78.1	413	.971	.888	86.6	395
15	.930	. 856	84.7	380	.975	. 874	81.7	433	.982	. 882	78.0	426	. 970	. 883	88. 1	407
30	.911	.845	89.0	364	.977	. 864	83.5	461	. 977	. 871	81.8	445	. 973	.870	88.9	442
50	.912	. 838	89.3	386	.965	. 853	85.4	462	. 978	. 857	83.4	478	. 975	. 858	90. 1	472
70	.909	. 833	90.6	393	.963	. 849	86.6	468	. 982	. 848	83.1	502	. 979	. 851	91.3	494
85	.908	. 835	90. 5	384	. 964	. 850	87.6	469	. 985	. 850	84.0	504	. 979	. 852	91.2	492
90	.907	. 835	90.5	380	.963	. 851	87.5	466	. 984	. 851	84.0	501	. 977	. 853	91.2	485
95 (tip)	.907	. 836	87.7	376	958	. 855	87.6	447	. 984	. 853	84. 1	496	. 974	.857	91.2	473
MR	.913	.841	88.7	382	.966	. 857	85. 2	457	.981	. 859	82.5	477	.976	.881	90. 1	467
		26	<u>5°</u>			295	<u>5*</u>			3:	25 <u>*</u>			3	55 <u>*</u>	
5 (hub)	.969	. 897	81.4	364	.964	. 897	90.5	356	.981	.900	86.9	390	.979	.902	91.3	381
10	.968	. 893	82.9	373	.971	. 892	90.5	386	. 983	. 894	86.9	407	. 982	. 896	91.3	400
15	.970	. 888	82.9	392	.975	. 885	90.5	412	. 983	. 889	86.8	421	.982	.892	91.2	411
30	.979	. 874	84.2	442	.980	. 872	92.1	453	.983	. 875	86.6	451	.982	. 879	91.1	442
50	. 984	. 860	85.7	484	.982	. 859	92.9	483	.984	. 859	87.7	486	.983	.861	90.7	481
70	.986	. 852	87.0	504	.980	. 853	92.8	491	.986	.851	89.6	506	.985	. 853	90.5	503
85	.986	. 854	87.0	499	.976	. 854	92.8	481	.985	. 854	89.6	499	.985	.855	90.5	497
90	. 984	. 855	87.0	494	.974	. 855	92.8	476	.983	.855	89.7	494	. 984	. 856	90.5	493
95 (tip)	.980	. 858	87.1	481	.972	. 859	92.8	465	.980	.858	89.8	481	.982	. 859	90.6	484
MR	.982	. 863	85.7	473	. 976	. 863	92.4	468	.984	. 863	88.4	478	. 983	.865	90.7	473

Test environment: P<sub>0</sub> = 1999 psfa, T<sub>0</sub> = 500.2 °R
 Vm calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sup>a</sup> = tan -1 [tan β<sub>4</sub>/cos a]

Rotor Inlet Circumferential Distributions Direk Turoba Station 4 80% Speed

					Rotor In				al Disti % Speed		ns	$w\sqrt{\theta}$	$\gamma_{\delta} = 12$	27. 02		
Circumferential					DIPLE		ation	1 00	W Pheer			•	•			
Position	- /-	$\frac{25}{P_4/P_0}$			- 4-	$\frac{55}{P_4/P_0}$				$\frac{85}{P_4/P_0}$					115° 90- 8°	
% Span	$P_4/P_0$	$\frac{P_4/P_0}{}$	90- 84	V m	P4/P0	$\frac{P_4/P_0}{}$	90- 83	V m	$P_4/P_0$	$P_4/P_0$	90- 83	<u>v m</u>	$\frac{P_4/P_0}{}$	$\frac{P_A/P_0}{}$	90- 8	$\frac{\mathbf{v_m}}{}$
5 (hub)	.969	.915	103.3	310	. 979	.910	104.2	347	.969	.897	110.9	343	.941	.882	98, 1	335
10	.971	.914	103.4	320	.975	.909	104.2	342	. 973	. 895	111.1	358	. 939	.879	99.1	338
15	<b>.97</b> 8	. 909	101.1	353	. 975	. 904	190.0	361	. 973	.888	109.0	380	.932	.875	98.1	330
30	.984	.897	99.9	396	. 983	. 894	96.8	405	. 967	.878	107.6	392	. 926	.864	92. 1	351
50	. 983	.889	99.9	115	. 983	. 889	96.8	417	.960	.874	105.9	393	. 926	.856	92.1	370
70	.961	.886	99.9	417	. 985	.881	96.8	432	. 949	. 874	105.8	366	. 926	. 854	92.1	375
85	.978	. 857	97.6	412	. 984	. 886	96.8	426	. 954	. 876	105.8	373	. 925	.855	92.0	371
90	.977	.888	97.6	405	. 983	. 887	96.8	422	. 963	. 876	105.8	393	. 925	. 856	92.0	369
95 (tip)	.975	. 892	97.5	393	. 987	.889	96.8	409	. 971	.881	105.7	398	.925	.858	92.0	<b>36</b> 5
MR	.980	. 892	99.5	400	.982	.890	97.4	412	.961	.878	106.7	382	. 927	.860	92.9	363
		145°				175	•			20	<u>)5</u> °			23	<u>5</u> °	
5 (bub)	.948	. 884	80.8	346	. 964	. 897	76.6	347	. 979	.904	74.2	359	.979	. 909	82.2	358
10	. 947	.880	82.0	356	.970	.893	78.4	374	.994	.902	75.8	381	.976	. 905	84.1	361
15	.940	.874	84.6	357	.977	.889	81.3	403	.985	.896	75.7	395	.975	. 901	85.7	371
30	. 924	.864	89.1	344	.978	.879	83.7	431	.981	. 887	80.2	415	.975	.890	87.2	398
50	.923	.856	89.0	365	.970	.871	85.4	433	.979	.875	81.9	439	.977	.880	88.5	429
70	. 924	. 854	90.6	371	. 969	.866	86.3	442	.982	.869	83.0	459	.980	. 875	89.7	447
85	.922	.856	90.5	362	.968	.867	87.2	439	.986	.870	93.0	463	.981	. 876	89.8	445
90	.920	.854	90.5	362	.965	.867	87.2	433	.985	.870	83.0	463	.979	.876	90.0	442
95 (tip)	.920	.857	88.1	354	.961	.871	87.1	415	. 585	.872	83.4	458	.978	.879	90.0	432
MR	. 926	.860	88.7	360	.970	.873	85.0	428	.982	.878	81.3	439	.978	. 883	88.4	424
		265°	· -			295°				325°				355	•	
5 (hub)	.976	,915	79.8	331	. 967	.916	89.3	309	. 984	.919	86.5	346	.982	.918	90.5	345
10	. 972	911	81.9	333	.971	.913	89.3	329	.985	.915	86.5	360	. 983	.914	90.4	359
15	. 973	.909	81.9	345	.978	.908	89.2	361	.986	. 912	86.4	370	. 984	.910	90.4	371
30	.981	. 895	81.8	398	. 983	. 897	91.1	401	. 986	. 903	86.3	392	.984	.900	90.3	396
50	.985	.886	84.8	430	, 985	.888	92.2	426	. 985	. 887	86.2	429	, 985	.888	90.3	428
70	.987	.882	86.3	443	. 984	.884	92.1	434	.987	.884	90, 1	440	, 987	.886	92.1	436
85	.988	.883	86.3	442	.981	.886	92.1	423	.987	.887	90. 1	434	.986	.888	92.1	429
90	.986	.884	86.3	438	.980	.887	92.0	418	.986	.888	90.1	428	. 986	.889	92.1	425
95 (tip)	.985	.887	86.3	427	.976	.889	92.0	405	.981	. 887	90.0	427	. 984	.891	92.0	417
MR	.984	889	84.6	420	.981	.891	91.6	412	.983	. 892	88, 1	418	. 985	. 893	91.2	416
					• • • • •					· · ·						

Test environment: P<sub>0</sub> = 2015 psfa, T<sub>0</sub> = 500.7 °R
 V<sub>m</sub> calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant

<sup>5)</sup>  $\theta_4 = \tan^{-1} \left[ \tan \theta_4 / \cos \epsilon \right]$ 

#### Rotor Inlet Circumferential Distributions Disk Probe Station 4 90% Speed

$$W\sqrt{\theta/\delta} = 166.03$$

Circumfer	ential				Disk I	Probe	Station	4	90% Spec	<b>9</b> a		• • •	Nolo			
Position	<u></u>				55°				85	<u>•</u>		•	115	<u>.</u>		
% Span	$\frac{P_4/P_0}{}$	$p_4/P_0$	90 - <b>\$</b> 4*	$v_{m}$	$P_4/P_0$	$p_4/P_0$	90 - 4.	v <sub>m</sub>	P <sub>4</sub> /P <sub>o</sub>	$P_4/P_0$	90 - 4.	V <sub>m</sub>	$P_4/P_0$	$\frac{p_4/P_0}{}$	90 - 4.	$\underline{\mathbf{v_m}}$
5 (hub)	. 952	. 843	97.7	458	. 952	. 836	99.4	471	. 941	. 816	106.8	478	. 886	. 795	93.G	435
10	. 965	. 834	96.7	502	. 956	. <b>82</b> 6	97.1	502	. 941	. 808 .	104.9	498	. 886	. 765	91.0	458
15	. 969	. 827	96.7	520	. 965	. 820	96.9	528	. 938	. 800	104.1	510	. 882	. 779	90.9	4G5
30	. 969	. 807	96.2	561	. 971	. 798	92.8	582	. 933	. 782	102.1	541	. 878	760	88.2	503
50	. 969	. 788	96.1	595	. 970	. 779	91.5	614	. 902	. 768	99. 5	520	. 876	. 747	48.9	527
70	. <b>96</b> 6	. 780	95.9	605	. 972	. 772	93.7	629	. 883	. 764	99. 5	495	. 875	. 742	88.7	536
85	. 959	. 781	94.9	593	. 972	. 775	93.6	623	. 893	. 766	100.9	509	. 876	. 744	88.7	531
90	. 956	. 784	94.9	584	. 969	. 777	93.7	616	. 913	. 767	102.9	537	- 874	. 745	88.7	527
95 (tip)	. 950	. 790	94. 9	563	. 966	. 784	95.0	599	. 937	. 775	103.4	55 <del>9</del>	. 874	. 748	88.8	519
MR	. 964	. 794	95. 9	576	. 969	. 786	93.7	600	. 912	. 776	1.1.5	520	. 877	. 753	H9. 1	516
		145°				175	•			20	·5*			235	<u>.</u>	
5 (hub)	. 919	.800	78.7	483	. 945	. 821	77.3	495	. 969	. 833	77.2	502	959	. 833	85.7	496
10	. 913	. 793	81.5	491	. 952	. 817	80.5	515	. 972	. 826	79.7	523	953	. 826	88.3	500
15	. 901	. 786	84.8	487	. 964	. 811	82.5	547	. 970	. 818	79.3	536	953	. 817	88.6	518
30	. 875	. 769	87.6	476		. 817	90.3		. 961	. 799	82.2	560	. 959	. 799	89.4	564
50	. 876	. 756	88.1	507		. 817	80.3		968	. 778	82.9	609	. 966	. 781	90. 5	605
70	. 873	. 750	88.9	515		. 917	80.2		. 971	. 770	83.5	627	. 969	. 774	91. 1	621
85	. 870	. 750	88.0	508		.817	80.2		. 977	. 773	83.4	630	. 967	. 777	91.4	615
90	. 8G9	. 751	85.7	505		.817	80.2		. 977	. 774	83.3	628	965	. 776	90.5	613
95 (tip)	. 869	. 755	87.1	496		.817	80.2		. 976	778	83.3	620	. 963	. 783	89.1	599
MR	. 878	. 761	87. 1	500	. 954	. 817	80. 1	<b>52</b> 0	. 970	. 785	82. 5	600	. 964	. 787	90. 1	592
		265°				295	<u>:</u>				325°			35	<u>5°</u>	
5 (hub)	. 948	. 835	83.5	468	. 955	. 834	89.5	486	. 972	. 839	88.0	506	. 969	. 840	91.4	500
10	. 955	. 827	84.9	497	. 962	. 827	89.6	513	. 974	. 830	87.8	528	. 972	. 830	90. 2	523
15	. 960	. 820	84.6	521	. 967	. 819	90.7	537	. 975	. 821	87.6	546	. 971	. 820	88.7	542
30	. 970	. 798	85.2	579	. 969	. 798	92.9	579	. 974	. 798	87.0	588	. 511	. 830	89.8	040
50	. 975	. 776	86.4	626	. 973	. 782	93.3	613	. 974	. 776	88.8	627		. 880	89.8	
70	. 977	. 767	86.1	643	. 966	. 773	93.0	620	. 977	. 765	89.6	648		. 830	89.8	
85	. 977	.771	86.0	637	. 964	. 776	92.6	611	. 977	. 771	89. 5	636		. 830	89.8	
90	. 973	. 772	86.0	630	. 962	. 776	91.8	609	. 975	. 772	89. 5	633		. 830	89. 8	
95 (tip)	. 968	. 776	86.1	615	. 961	. 782	90.7	597	. 969	. 777	89.6	617		. 830	89.8	
MR	. 972	. 783	85.8	609	. 967	. 787	92.4	596	. 975	. 763	88.7	614	. 971	. 830	90. 1	522
	· - · <del>-</del>	· · · · ·				•										~

Test environment: P<sub>O</sub> = 1972 psfa, T<sub>C</sub> = 494.1°R
 V<sub>m</sub> calculation is based on standard-day inlet-plen im conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sub>4</sub>° = tan -1 [tan β<sub>4</sub>/cos e]

#### Rotor Inlet Circumferential Distributions Disk Probe Station 4 90% Speed

 $W\sqrt{\theta/\delta} = 156.12$ 

Circumfe	rentiel				DIDK I	1000			ow rhoo	u		•	,			
Position	. Cintar	25*				<u>55*</u>				85°				115	<u>•</u>	
% Span	P <sub>4</sub> /P <sub>o</sub>	$\frac{P_4/P_0}{}$	90 - 84°	$\frac{\mathbf{v_m}}{}$	$\frac{P_4/P_o}{}$	P <sub>4</sub> /P <sub>0</sub>	90 - 44	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$\frac{P_4/P_0}{}$	90 - 84°	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$P_4/P_0$	90 - 64*	$\frac{v_{m}}{}$
5 (hub)	. 956	. 872	100.7	395	. 961	.860	101.2	456	. 953	. 847	109. 9	429	903	. 818	95.9	412
10	. 965	. 866	99.4	430	. 959	. 856	101.2	477	. 957	. 839	107.8	456	. 899	. 813	95.9	418
15	. 972	. 861	99.4	454	. 967	. 847	97.9	494	. 953	. 832	107.2	465	. 894	. 603	91.0	435
30	. 974	. 844	98.4	496	. 973	. 831	94.5	530	. 948	. 817	105.6	490	. 889	. 789	91.2	457
50	. 975	. 828	98.4	527	. 973	. 812	91.6	573	. 931	. 808	103.0	483	. 889	. 7 <b>7</b> 6	90.8	486
70	. 971	. 820	97.9	53 <b>6</b>	. 974	. 804	94.3	5 <del>9</del> 6	. 914	. 804	101.9	463	. 887	. 771	90.7	496
85	. 967	. 822	96.7	528	. 975	.808	94.3	585	. 322	. 807	103.4	468	. 888	. 772	90. 7	494
90	. 963	. 822	95.8	523	. 972	. 809	94.3	580	. 937	. 807	104.5	493	. 887	. 774	90.7	489
95 (tip)	. 957	. 827	95. 9	502	. 967	. 814	96.2	567	. 951	. 814	105.2	502	. 885	. 777	90. H	477
MR	. 970	. 832	97.9	511	. 972	.818	94.5	561	. 934	. 813	104.3	477	. 869	. 781	91.1	476
		145*				175*	-			2	05°			2:	35 <b>°</b>	
5 (hub)	. 924	. 822	80.1	445	. 965	. 853	77.1	449	. 972	. 859	75.9	450	. 948	. 840	84.6	463
10	. 919	. 816	82.6	452	. 961	. 847	80.1	478	. 976	. 852	78.5	478	. 955	835	87.4	469
15	. 909	. 809	85.7	452	. 959	. 839	82.8	509	. 976	. 844	78.3	492	. 966	. 831	88.2	484
30	. 886	. 793	89.2	442	. 963	. 821	84.8	538	. 969	. 828	81.9	518	. 964	. 816	89.2	527
50	. 888	. 784	89.2	467	. 968	.805	86.3	541	. 971	. 808	81.2	558	. 951	. 803	90.2	564
70	. 884	. 776	90.4	479	. 972	. 797	87.2	556	. 974	. 801	83.9	580	. 951	. 796	91.3	586
85	. 885	. 779	90.3	473	. 972	. 798	88.0	558	. 980	. 798	82.8	591	. 956	. 799	91.2	585
90	. 884	. 779	90.3	470	. 969	. 798	88.0	557	. 979	. 801	83.6	586	. 954	. 798	91.2	579
95 (tip)	. 882	. 781	87.5	462	. 968	.804	86.6	543	. 977	. 805	83.7	577	. 951	. 802	89.5	567
MR	. 890	. 787	88.7	464	. 968	. 809	85.9	540	. 974	. 813	82.0	555	. <b>95</b> 6	. 807	90.0	557
		265°				295*				3:	25*			3	55*	
5 (hub)	. 958	. 867	81.6	416	. 958	. 8 57	89.0	441	. 974	. 864	87. 2	458	. 972	. 863	—— 89. 7	434
10	. 959	. 860	83.6	436	. 964	. 850	89.5	468	. 976	. 856	87.0	478	. 974	. 855	89 3	438
15	. 965	. 854	83.4	458	. 968	. 842	90.0	494	. 978	. 851	86.8	492	. 975	. 848	89.4	478
30	. 972	. 833	84.4	516	. 973	. 824	92.3	538		. 831	86.4				88.9	522
50	. 972	. 817	85.0	556	. 973	.808	92.3 93.0	538 570	. 978 . 977	. 808	87.6	530 573	. 976 . 977	. 831 . 808	89.4	522 560
70	. 980	. 809	86.0	575	. 971	.863	93. 0 92. 8	579	. 979	. 801	89. 1	573 590	. 980	. 798	89. 0	574
85	. 980	. 810	85.9	572	. 968	.804	92. 8	568	. 977	. 803	89.0	584	. 978	. 803	89. O	570
90	. 977	. 810	85. 9	568	. 966	.803	91.9	566	. 976	. 802	87. 5	583				
95 (tip)	. 973	. 814	85. 9	556	. 965	. 808	91.9	566	. 978	. 802	87. 5 88. 5	562	. 977 . 975	. 804	89. 0 89. 1	562 545
MR	. 975	. 821	85. I	554	. <del>9</del> 03 . <b>9</b> 70	. 813	90.7	554	. 973	. 916	87. 9	560	. 975	. 810 . 815		546
	. 510	. 044	00.1	002	. 510	. 010	72. I	002	. 977	. 710	9.1. A	<b>2</b> 00	. 977	. 913	89. 1	040

Test environment: P<sub>o</sub> = 1979 psfa, T<sub>o</sub> = 496.0 °R
 V<sub>m</sub> calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sub>4</sub> ° = tan<sup>-1</sup> [ tan β<sub>4</sub>/cos °]

Circumferential

#### Rotor Inlet Circumferential Distributions $W\sqrt{\theta/\delta} = 148.96$ Disk Probe Station 4 90% Speed

Position					DIBY LLC	DE DE	ation 4	90	% speeu			•	•				
Position		25	<u>.</u>			<u>55</u>				95	<sup>6</sup>				115	_	
% Span	$\frac{P_4/P_0}{}$	$\frac{p_4/P_0}{}$	90- \$4	$\underline{v_m}$	$\frac{P_4/P_0}{}$	$\frac{\mathbf{p_4}/\mathbf{P_0}}{\mathbf{p_0}}$	90- 64	$v_{\mathbf{m}}$	$\frac{P_4/P_{c}}{}$	$\frac{p_4/P_0}{}$	90- 84	$\frac{v_m}{}$		$\frac{P_4/P_0}{}$	$\underline{p_4/P_0}$	90- 84	$\frac{\mathbf{v}_{\mathbf{m}}}{\mathbf{v}_{\mathbf{m}}}$
5 (hub)	.958	. 879	99.9	384	. 966	. 874			.958	. 854	109.0	424		.917	. 841	95.8	389
10	.966	. 876	100.0	409	, 965	. 872			,959	, 847	107.7	443		.912	. 829	92.9	407
15	.974	.871	100.0	435	.971	, 864			, 957	. 843	107.8	448		, 907	. 82 5	92.8	408
30	.976	. 850	97.7	487	.978	. 851			. 951	, 826	104.8	181		, 903	. 809	90.1	440
50	.977	. 837	97,9	514	. 976	. 837			. 934	.818	102.6	469		, 902	.796	89.7	468
70 85	.974	. 830	97.8	522	.979	. 825			.917	. 813	101.6	449		, 902	. 794	90.7	472
90	. 967	, 829	96.7	514	. 979	, 831			. 92 3	, 616	102,4	455		,902	.797	90.7	466
95 (típ)	, 965	.833	96.7	504	. 977	, 832			, 938	. 816	103.6	481		, 900	.797	90.7	463
MR	.961	. 837	96.7	488	.972	. 835			. 953	. 821	103.9	495		,900	. 801	90,8	452
14144	, 972	.841	97.8	497	.974	. 847			.937	. 822	103.7	465		.903	. 803	90.8	454
		14	<u>5°</u>			1	75°			205	-				23	5 '	
5 (hub)	. 933	.839	80.6	426	.955	.888	90.0	360	,976	. 872	75.4	429					
10	.931	, 833	82.3	437	, 964	. 885	90,0	387	,980	.868	77.8	451					
15	.921	. 824	85.3	440	, 963	.882	90,0	393	.980	. 860	77.6	466					
30	,900	.810	88.8	431	,973	. 874	90,0	433	.973	. 845	80.7	490					
50	901	.800	88.8	455	.978	864	90.0	466	.975	827	82.1	529					
70	.901	.795	89.8	467	.979	. 855	90.0	487	.978	. 816	83.0	556					
85	.897	.797	89,8	456	.979	. 848	90.0	500	.981	.817	83,1	559					
90	.896	. 796	89.8	455	.977	. 846	90.0	502	.979	.814	63.0	562					
95 (tip)	. 894	.800	89.8	442	.975	. 844	90.0	502	.980	.819	83.0	554					
MR	.903	.804	88.5	451	.975	. 861	90.0	467	.977	. 830	81.7	528					
		26	5 <u>°</u>			295	,•			325°					35	5 -	
á (hub)	. 960	.878	80.9	392	.958	.879	- 89.6	390	.979	. 884	86.6	422		.968	, 860	90.0	456
10	. 962	.871	82.2	413	.967	,873	88,7	424	, 980	.880	86.5	434		. 965	. 857	90.0	456
15	.966	. 866	82.2	433	.971	. 866	89.5	447	.980	. 874	86.4	447		. 964	. 854	90.0	459
30	.974	. 848	84.1	488	.976	.851	91.7	489	.980	. 857	86.0	483		.976	.847	90.0	498
50	.981	. 834	85.6	529	. 979	, 837	92.4	522	.982	. 838	88.1	525		.976	. 837	90.0	517
70	.983	. 825	85.3	550	.976	. 829	92.5	532	, 984	, 831	89.7	542		.978	. 828	90.0	538
85	. 983	.830	86.1	541	. 972	. 833	92.4	518	.983	. 836	89.7	532		.978	. 822	90.0	549
50	,980	. 829	86.1	537	.968	. 833	92.4	511	. 981	. 834	89.7	533		.975	. 820	90.0	549
95 (tip)	.975	. 833	86.2	523	. 965	.838	92.4	496	.978	. 838	89,8	518		.970	.818	90.0	545
MR	.978	.838	85.0	517	.974	.841	91.9	505	.982	. 844	88.3	513		.975	. 635	90.0	520

Test environment: P<sub>o</sub> = 1997 psfa, To = 501.2°R
 V<sub>m</sub> calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant 5)  $\beta_4^{\circ} = \tan^{-1}[\tan \beta_i/\cos \epsilon]$ 

# Rotor Inlet Circumferential Distributions

					Rotor In	let Ci	rcumf	erentia	l Distr	ibutio	ns	_	-/			
Circumferential					Disk Pr	obe St	ation 4	959	Speed			w V	$\overline{\theta}/\delta = 174$	1. 19		
Position		25°				<u>5</u> .	<u>5°</u>				85°			11	<u>5°</u>	
% Span	$\frac{P_4/P_0}{}$	$\frac{p_4/P_0}{}$	90- 84	$\frac{v_m}{}$	$\frac{P_4/P_o}{}$	$\frac{P_4/P_o}{}$	90- 84	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$\frac{{\bf p_4}/{\bf P_0}}$	90- 84	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$\frac{\mathbf{p_4}/\mathbf{P_0}}{\mathbf{p_0}}$	90- 84	V_am_
5 (hub)	. 944	.817	97.7	496	. 945	. 809	99.4	514	. 935	.794	106.1	513	. 869	.764	92.7	475
10	.960	. 811	96.8	538	. 950	.800	97.1	542	, 934	.785	104.2	532	.870	.757	92.6	492
15	. 964	. 800	96.3	565	. 962	.792	96.9	576	.930	.776	103.3	546	, 865	.744	89.5	513
30	.964	.778	96.3	604	.964	.769	93.5	624	. 927	.756	102.2	581	. 862	.726	89.0	545
50	.964	.759	96.6	637	.964	.745	91.1	666	. 897	.740	99.5	569	.859	.713	88.4	575
70	.959	.750	96.3	646	. 967	.738	93.6	679	.879	.735	99.4	549	, 859	.704	88,2	587
85	. 951	. 752	95.3	633	. 968	.742	93.6	673	893	.739	101.3	562	.860	.707	88.1	582
90	.943	.755	95.3	618	. 965	.744	93.6	667	.912	.742	102.7	584	.858	.708	88.1	577
95 (tip) MR	.941	.764	95.3	598	,961	.752	94.8	648	. 932	. 752	103.5	592	. 857	.712	88.2	567
MK	.957	.766	96.2	617	. 964	.754	93.7	648	, 907	.749	101.4	564	.860	.717	88.7	563
		145°	_			176	<u>5•</u>			20	)5°			235	2	
5 (hub)	.908	.774	87.6	518	. 938	. 797	76.8	518	. 964	. 812	79.0	537	. 956	. 811	85.4	532
10	.900	.766	88.7	525	. 946	.793	80.3	546	. 967	. 800	78,7	562	. 94 8	.804	88.1	536
15	.887	.757	88.4	521	,958	.785	82.5	582	. 964	.793	81.2	574	. 948	.794	88.1	554
30	.860	.739	87.0	514	.956	.768	84.4	612	.953	.771	82.5	599	, 955	.773	89.3	603
50	.861	.725	88.8	545	, 938	.753	85.6	615	.963	750	83.0	651	. 962	.756	90.2	645
70	.857	.719	90.0	552	. 936	.745	86.4	625	, 968	.743	83.8	670	.963	.749	91.1	657
85	. 854	,721	90.0	542	.938	.750	87.4	620	.975	.747	83.6	672	. 964	.752	91.0	652
90	. 852	.721	90.0	538	.939	.750	87.4	622	.974	.748	63.6	670	. 960	.754	91.1	645
95 (tip)	. 852	725	90.1	528	.941	.757	85.6	611	,974	.754	83.7	660	. 957	.760	89.1	630
MR	.863	.731	89.0	536	.943	.759	85.2	610	.966	.758	82,9	641	. 959	.763	80,9	628
		2-65	<u>;•</u>			295				325	•			355	<u>.                                    </u>	
5 (hub)	. 941	.816	85.8	498	.950	. 812	91.0	523	. 966	, 814	78.9	546	. 964	. 815	91.8	540
10	.948	.806	85.6	528	.957	.801	89.6	556	, 969	804	81.8	568	.967	. 802	90.5	566
15	. 954	.797	85.3	557	. 963	.791	90.7	583	.970	793	84.9	589	. 968	.793	90.2	586
30	.964	.772	85.5	618	, 965	.768	92,9	626	.968	767	87.2	633	.969	.766	89.1	637
50	.972	.750	87.0	667	.967	.750	93.0	659	.968	.744	87.8	672	, 969	.742	90.0	676
70	.972	.740	86.7	682	.959	.743	92.8	662	.972	. 736	88.5	690	.972	.732	89.7	697
85	.973	.746	86.6	675	.955	.747	92.9	648	.972	.742	88.5	679	, 972	.739	89.6	686
90	.969	.750	87.8	663	.953	749	92.9	642	,968	,744	88.5	671	. 969	.740	89.6	681
95 (tip)	.959	.755	88.0	641	,953	.756	90,6	632	,961	. 751	85.3	651	, 968	.746	89.7	669
MR	.967	.758	86.6	646	.960	.758	92.4	637	, 969	754	87.0	656	.970	.751	89.8	662

Test environment: P<sub>o</sub> = 1957 psfa, To = 498.2 °R
 V<sub>m</sub> calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft
4) Relative position of circumferential distortion screen is in second quadrant
5)  $\beta_4^a = \tan^{-1} \left[ \tan \beta_4 / \cos \epsilon \right]$ 

#### Rotor Inlet Circumferential Distributions $W\sqrt{\theta}/\delta = 162.90$ Disk Probe Station 4 95% Speed

Circumferential			D18K .	Probe	Station	1 4	95% Spe	ea		•	,					
Position	I CHILDI	<u>25°</u>				<u>55°</u>				85	<u>:</u>			11	<u>5*</u>	
% Span	$\frac{P_{4}/P_{0}}{}$	$\frac{\mathbf{p_4/P_0}}{}$	90 - 040	$\frac{\mathbf{v_m}}{}$	$\frac{P_4/P_0}{}$	$\frac{{\rm p_4/P_o}}$	90 - 84*	V <sub>m</sub>	$\frac{P_4/P_o}{}$	P <sub>4</sub> /P <sub>o</sub>	90 - 84	$\frac{v_{m}}{}$	$\frac{P_4/P_0}{}$	P <sub>4</sub> /P <sub>o</sub>	90 - 44	v <sub>m</sub>
5 (hub)	. 953	. 855	99. 4	430	. 955	. 840	100.8	467	. 950	. 828	108.4	464	. 891	. <b>79</b> 6	95. 3	441
10	. 964	. 851	98.4	464	. 955	. 930	98.3	489	. 952	. 822	106.6	486	. 889	. 787	92.4	462
15	. 970	. 843	98.4	491	. 963	. 824	98.1	516	. 948	. 814	105.8	496	. 884	. 780	92.6	466
30	. 973	. 821	97.2	539	. 969	.807	94.5	562	. 944	. 797	104.2	526	. 879	. 750	89.2	508
50	. 972	. 802	97. 5	573	. 969	. 786	92.4	600	. 924	. 784	101.7	522	878	. 745	89.3	535
70	. 968	. 795	97.2	578	. 971	. 778	94.5	616	. 904	. 779	100.8	501	. 878	. 742	90. 2	540
85	. 960	. 797	96.6	565	. 971	. 782	94.4	610	. 912	. 784	102.9	500	. 878	. 744	90. 2	537
90	. 952	. 796	96.6	555	. 970	. 784	94.4	605	. 928	. 788	104.2	517	. 876	. 744	90. 2	534
95 (tip)	. 949	. 805	96.7	532	. 965	. 793	96.7	580	. 940	. 797	106.6	514	. 875	. 750	90.3	520
MR	. 966	. 809	97.3	551	. 968	. 793	94.8	585	. 927	. 792	103.4	510	. 879	. 752	90. 3	521
		145°				175°				205	<u>·</u>			235	<u>5°</u>	
5 (hub)	. 908	. 8	79.9	479	. 942	. 820	77.6	482	. 971	. 849	75. 4	469	. <b>9</b> 61	. 631	84. 2	501
10	. 914	. 786	80.7	486	. 951	.815	80.5	511	. 975	. 842	78.0	494	956	. 825	87.5	505
15	. 910	. 786	82.7	487	. 962	. 808	82.5	545	. 975	. 836	79.2	508	. 952	. 816	87. 9	519
30	. 871	. 768	88.0	482	. 960	. 791	84.9	578	. 967	. 818	81.4	534	. 958	. 797	88.8	565
50	. 879	. 756	88.8	512	. 945	. 775	86.0	585	. 968	. 796	82.2	577	965	. 779	90. 1	60 <del>9</del>
70	. 876	. 750	89.7	521	.946	.768	87.0	600	. 974	. 785	83.0	605	. <b>9</b> 68	. 771	90. 9	626
85	. 875	. 751	89.0	514	. 947	. 771	87.7	597	. 980	. 784	82.7	C15	. 968	. 773	91. 0	623
90	. 873	. 750	89.0	514	. 948	. 772	87.7	595	. 980	. 785	82.7	614	. 965	. 775	91.0	615
95 (tip)	. 871	. 755	87.3	500	. 943	. 779	87.7	576	. 978	. 790	84.2	604	. 962	. 779	88.9	604
MR			88.1	505	. 949	. 781	85.8	581	. 973	. 800	82.0	577	. 964	. 785	89.7	596
		265°				295*				325	<u>•</u>			355	<u>j•</u>	
5 (hub)	. 954	. 8 59	82.3	426	. 953	. 843	99.9	463	.881	. 761	88.2	475	. 969	. 848	91.8	483
10	. 957	. 853	83.4	446	. 959	. 833	88.7	496	. 972	. 854	86. <b>4</b>	499	. 970	. 83 5	88.8	511
15	, 961	.845	83.2	471	. 964	. 825	89.9	520	. 974	. 845	87.6	514	. 971	. 829	90. 2	525
30	. 971	. 823	84.3	532	. 969	. 806	92.6	564	. 974	. 837	87.0	55 <del>4</del>	. 972	. 805	88.0	572
50	. 978	. 803	85.8	583	.971	. 788	92.8	600	. 274	. 816	88.6	599	. 973	. 785	90.6	609
70	. 979	. 796	86.8	597	. 966	. 782	93.3	604	. 975	. 792	85-8	614	. 976	. 776	90.3	629
85	. 978	. 801	86.8	588	. 963	. 784	93.0	595	. 978	. 786	89.8	609	976	. 781	90.7	619
90	. 975	. 801	86.8	583	. 959	. 785	92.9	588	. 977	. 788	89.8	603	. 975	. 788	90.7	614
95 (tip)	. 970	. 808	86.9	563	. 958	. 793	93.0	572	. 974	. 789	89.8	585	. 972	. 788	90. 8	602
MR	. 974	. 810	85.7	563	. 965	.795	92.5	579	.979	. 795	89.8	585	. 973	. 793	90. 1	5 <b>9</b> 6
					_											

<sup>1)</sup> Test environment:  $P_0 = 1978$  psfa,  $T_0 = 493.6$ °R
2)  $V_m$  calculation is based on standard-day inlet-plenum conditions
3) Circumferential reference position is TDC looking aft
4) Relative position of circumferential distortion screen is in second quadrant
5)  $\beta_4$ ° = tan  $^{-1}$  [tan  $\beta_4/\cos\epsilon$ ]

#### Rotor Inlet Circumferential Distributions Disk Probe Station 4 95% Speed

 $W\sqrt{\theta/\delta} = 159.93$ 

Circumfe	rential				Disk	Probe	e Statio	n 4	95% <b>Spe</b>	ed		WV	9 10 -			
Position		25°				55	<u>-</u>			85	5°			115	<u>•</u>	
% Span	$\frac{\mathbf{P_4/P_0}}{}$	$\frac{\mathbf{p_4/P_0}}{}$	90 - 84*	V <sub>mi</sub>	$\frac{P_4/P_o}{}$	$\frac{\mathbf{p_4/P_o}}{}$	90 - 84	v <sub>m</sub>	$\frac{P_4/P_0}{}$	$\frac{\mathbf{p_4/P_o}}{}$	90 - 84°	$\frac{v_m}{}$	$\frac{P_4/P_o}{}$	$\frac{\mathbf{p_4}/\mathbf{P_0}}{}$	90 - 64	v <sub>m</sub>
5 (hub)	. 352	. 854	99. 5	431	. 960	. 852	102.1	448	. 949	. 826	108.4	468	. 900	. 809	96.0	430
10	. 964	. 845	98.1	474	. 958	. 843	99. 1	467	. 950	. 819	106.4	488	. 8 <b>97</b>	. 803	96.0	438
15	. 970	. 838	98.1	501	. 966	. 837	99.0	493	. 945	. 809	105. 5	502	. 891	. 792	91.6	455
30	. 972	. 818	97.3	543	. 973	. 820	94.6	543	. 944	. 793	103.9	532	. 889	. 779	91.2	480
50	. 970	. 797	97.6	578	. 972	. 803	94.0	574	. 924	. 781	101.7	528	. 887	. 763	90.8	512
70	. 966	. 790	97.2	585	. 973	. 793	95.1	592	. 907	.776	100.7	512	. 888	. 759	90.6	522
85	. 956	. 791	96.5	570	. 974	. 799	95. 1	583	. 913	. 781	102.9	507	. 888	. 762	90.6	516
90	. 952	. 793	96.4	560	. 973	. 799	95 1	580	. 931	. 785	103.9	529	. 886	. 761	90.6	514
95 (tip)	. 946	. 802	97.3	<b>532</b>	. 968	.806	96.2	560	. 942	. 793	105. 9	527	. 886	, <b>76</b> 6	90.7	502
MR	. 964	. 804	97.3	550	. 971	.808	95. 5	562	. 928	. 789	103.2	518	. 888	. 770	91.1	500
		1 <u>45*</u>				17	<u>5°</u>			20	<u>5°</u> _			235°		
5 (hub)	. 924	. 814	79.8	464	. 946	. 829	76.6	467	. 970	. 843	75.7	480	. 966	. 847	. 5	477
10	. 921	. 808	82.1	472	. 953	. 824	79.6	496	. 975	. 389	78.4	501	. 961	. 841	. 6	482
15	. 909	. 798	85.1	475	. 963	. 817	82.1	530	. 974	. 830	78.2	516	. 959	. 832	86.6	497
30	. 885	. 781	88.5	469	. 962	. 802	84.7	560	. 965	. 813	81.6	541	. 963	. 816	88.2	537
50	. 885	. 767	88.4	500	. 950	. 788	85.6	568	. 968	. 789	82.3	590	. 967	. 798	89. 4	576
70	. 884	. 762	89.4	509	. 948	. 781	86.4	578	. 972	. 781	83.2	611	. 968	. 790	90. 9	593
85	. 881	. 763	89.3	501	. 949	. 785	87.1	574	. 979	. 782	83.0	619	. 970	. 793	90. 9	591
90	.878	. 761	89.3	500	. 948	.786	87.4	570	. 977	. 778	82.9	622	. 968	. 793	90.8	589
95 (tip)	. 879	. 767	86.9	486	. 946	. 791	85.8	555	. 977	. 785	84. 0	611	. 963	. 800	90.6	567
MR	. 888	. 773	87.9	492	. 952	. 793	85.2	561	. 972	. 795	82.1	584	. 966	. 804	89. 5	565
		265°_				29	5 <b>•</b>			325	<b>5•</b>			355°	_	
5 (hub)	. 951	. 854	83.0	431	. 956	. 859	 89.8	435	. 975	. 870	88.7	447	. 969	. 861	92.4	455
10	. 955	. 848	82.8	454	. 962	.850	89.8	465	. 976	. 861	88.5	468	. 972	. 851	90. 1	482
15	. 959	. 842	84.2	476	. 968	. 850	89.8	492	. 976	. 852	88. 4	486	. 972	. 844	91.0	495
30	. 970	. 810	84.5	540	. 972	. 824	92.7	534	. 975	. 833	97.9	524	. 973	. 824	88.9	539
50 50		. 799	86.2	588	. 973	. 809	93.3	565	. 976	. 812	89.5	566	. 975	. 805	91.4	575
a∪ ∵,	. 976				. 973	.802	93. 2	570	. 978	. 801	90.7	587	. 979	. 797	91. 1	595
	. 979	. 790	86.8	607 505		.802	93. 2 93. 5	558	. 978	. 807	90. 6	578	. 977	. 804	91.5	581
00	. 979	. 797	87.1	595	. 965					. 810	90.6	569	. 977	. 805	91.5	579
90	. 974	. 797	87.1	589	. 962	.808	93.4	550	. 976 . 970	. 810	90. 6	558	. 974	. 811	91. 5 92. 5	564
95 (tip)	. 968	. 800	87.2	574	.960	. 815	93.5	533					. 975	. 812	92.0	562
MR	. 973	. 806	86.0	570	. 968	.815	92.8	546	. 976	. 818	89.7	554	. 9/5	. 515	32.0	302

Test environment: P<sub>O</sub> = 1982 psfa, T<sub>O</sub> = 494.8 °R
 V<sub>m</sub> calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant

<sup>5)</sup>  $\beta_4^* = \tan^{-1} \left[ \tan \beta_4 / \cos \epsilon \right]$ 

#### Stator Discharge Circumferential Distributions Disk Probe Station 13 80% Speed $W\sqrt{\theta}/\delta=147.35$

Circumi	ferentia l				Disk	Probe	Station	13	80% Spe	eed		**	A . 1.			
Position		_	<u>1•</u>			45	<u>5*</u>			8	<u>1°</u>			10	<u>)5°</u>	
Span	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 813	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - <sup>8</sup> 13	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 613	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 13	Vm
5 (hub)	1.140	1.016	93. 5	470	1.099	1.000	88.6	424	1.102	1.034	92.5	350	1.111	1. 009	88. 1	427
10	1.102	1.013	84. 5	401	1.070	1.006	83.8	344	1. 963	1.045	83.1	182	1.104	1.015	8 <b>3</b> . 9	396
15	1.075	1.014	80.3	331	1.124	1.011	82.7	446	1.065	1.049	80.3	170	1.212	1. 023	83.8	560
30	1.316	1.038	84.9	665	1.237	1.019	83.5	604	1.202	1.051	86.2	509	1.196	1.028	86. 5	537
50	1.287	1.041	85.1	629	1.261	1.020	84.0	628	1.210	1.055	86.1	513	1.182	1.033	84. 4	507
70	1.255	1.036	87.9	598	1.251	1.010	87.7	631	1.208	1.050	88.1	516	1. 182	1.027	87.4	521
85	1.241	1.023	88.6	601	1.235	1.000	89.9	627	1.203	1.041	90. 0	524	1. 191	1.018	87.4	<b>548</b>
90	1.231	1.023	88.8	589	1.216	. 993	87.9	615	1. 194	1.038	90. 1	516	1.176	1.015	87. <b>4</b>	533
95 (tip)	1.216	1.019	88.4	577	1.208	. 994	86.6	604	1.181	1.036	90. 2	501	1. 161	1.013	87.4	512
MR	1.250	1.031	86.7	600	1.228	1.009	86. 0	606	1. 193	1.047	87.7	499	1.183	1.624	86.3	525
		141*				17	1*			19	95°			23	1*	
5 (hub)	1.139	1.024	91.4	448	1.163	1.018	90. 5	502	1.203	. 980	88.2	619	1.222	1.015	88.9	586
10	1.071	1.021	82.8	300	1.081	1.014	83.2	349	1.238	. 991	84. 9	642	1. 179	1.019	83.8	522
15	1. 126	1.033	82.2	400	1.160	1.029	82.4	473	1.288	. 997	85.7	689	1.292	1.032	84.3	648
30	1.256	1.051	88.3	577	1.275	1.044	88.0	610	1.262	1.004	86. 2	650	1.288	1.036	88.2	638
50	1.225	1.053	86.9	534	1.248	1.046	86.1	570	1.230	1.008	84.2	605	1.256	1.038	86. 0	595
70	1. 187	1.047	88.7	489	1.223	1.042	88. 5	546	1.221	. 998	88.7	611	1.237	1.033	<b>69</b> . <b>2</b>	579
85	1.176	1.038	88.7	491	1.214	1.029	88.3	556	1.200	. <b>989</b>	90. 4	597	1.229	1.019	89. 0	590
90	1. 157	1.034	88.9	467	1.199	1.028	90. 1	538	1. 186	. <b>984</b>	88. 4	588	1.217	1. 016	89. 1	581
95 (tip)	1. 145	1.033	91.6	446	1.176	1.024	92.2	509	1. 169	. 984	87.7	566	1.192	1.015	91.8	548
MR	1.194	1.044	88.0	505	1.223	1.037	87.8	554	1.227	. 997	87.7	619	1.248	1. 029	88. 0	600
		255°				29	1*			31	.5°			345	<b>j•</b>	
5 (hub)	1.238	. 972	87.6	672	1.212	1.007	87.9	591	1.220	. 968	87.7	661	1.171	. 971	87.6	598
10	1.285	. 982	86.1	706	1.229	1.018	83.9	593	1.282	. 980	85.8	708	1.161	. 976	83.7	572
15	1.291	. 987	87.8	709	1.308	1.022	86.3	680	1.306	. 985	87.6	727	1.290	. <b>99</b> 0	83.7	703
30	1.272	. 997	85.7	672	1.296	1.033	88.1	652	1.285	. 997	86. 1	687	1.285	. 999	86.5	685
50	1.251	1.000	84. 0	642	1.266	1.035	8£. 2	613	1.254	1.001	84.0	644	1.262	1.003	83.6	650
70	1.232	. 988	89. 0	638	1.246	1.028	89.2	598	1.237	. 989	89.2	644	1.247	. 991	89. <b>4</b>	653
85	1.210	. 977	90. 9	628	1.243	1.015	90.9	613	1.216	. 978	90. 9	638	1.231	. 980	90. 5	650
90	1.193	. 971	88.9	617	1.232	1.014	90.9	602	1.199	. 971	88.6	625	1.213	. 974	88.5	637
95 (tip)	1.175	. 971	87.7	595	1.206	1.009	91.1	577	1.180	. 971	87.5	602	1. 197	. 972	86.8	621
MR	1.239	. 987	87.2	649	1.259	1.025	88.5	620	1.246	. 987	87.3	657	1.248	. 990	86.8	657

<sup>1)</sup> Test environment: Po = 1989 psfa, To = 499.6 R

<sup>2)</sup> Vm calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant 5)  $\beta$ 13° = tan<sup>-1</sup> [ tan  $\beta$ 13/cos e]

Stator Discharge Circumferential Distributions  $W\sqrt{\theta}/\delta=136.69$ Disk Probe Station 13 80% Speed Circumferential 21° Position 45\* % Span P12/Po P13/Po 90 - 613 Vm P<sub>13</sub>/Po P<sub>13</sub>/Po 90 - \$13 Vm P<sub>13</sub>/Po P<sub>13</sub>/Po 90 - \$13 Vm P<sub>13</sub>/Po P<sub>13</sub>/Po 90 - P<sub>13</sub> Vm 1.105 1.128 1.662 1.056 5 (hub) 1.123 1.069 99.4 305 1.048 96.4 281 1.117 89.3 327 90.6 318 1.076 84.9 50 1.078 1.061 86.3 176 1.092 1.068 86.0 86 85.0 222 10 1.078 1.095 1.067 30 15 1.067 1.067 79.4 1.076 1.065 83.4 141 1.086 1.085 81.1 1.163 1.067 ೬3. 5 401 371 30 1.165 1.083 80.6 1.181 1.064 82.3 445 1.175 1.094 82.1 365 1.225 1.069 86.1 505 50 1.304 1.099 85.2 565 1.275 1.065 82.7 580 1.231 1.100 465 1.203 1.076 84.4 461 86.1 76 1.295 1.099 87.5 554 1.272 1.058 86.7 587 1.244 1.102 485 1.201 1.070 86.6 473 88.7 1.269 1.089 87.6 538 1.260 1.051 88.4 585 1.252 1.094 88.5 510 1.213 1.062 86.6 507 1.087 1.257 87.7 526 1.238 1.048 88.4 562 1.244 1.090 88.5 505 1.201 1.061 87.3 491 95 (tip) 1.086 90.4 1.231 1.046 87.6 1.232 1.248 515 556 1.091 91.4 487 1.191 1.060 87.4 477 1.058 1.262 1.092 86.6 522 1.241 85.6 549 1.225 1.096 87. 5 463 1.201 1.068 86. 0 474 141° 5 (hub) 1.158 1.062 93.1 405 1.169 1.056 92.5 440 1.112 1.092 92.2 187 1.198 1. 055 89.9 491 10 1.094 1.069 83.7 208 1.098 1.057 83.8 266 1.093 1.091 85. 5 45 1.145 1.054 84.4 395 513 15 1.101 1.074 81.0 213 1.109 1.059 81.4 294 1.107 1.100 82.8 113 1.232 1.070 82.9 1.268 1.066 87.5 539 1.280 1.061 86.8 562 1.244 1.097 85.4 486 1.294 1.078 87.3 585 30 1.091 50 1.249 87.7 507 1.265 1.086 86.9 533 1.221 1.103 85.4 440 1.276 1.084 87.4 554 70 1.076 87.5 530 1.229 1.087 87.9 484 1.243 1.080 87.0 513 1.232 1.098 86.9 475 1.251 85 468 545 1.210 1.080 90.6 1.238 1.074 89.4 516 1.237 1.091 86.9 495 1.253 1.069 89.7 90 90.7 456 1.219 497 86.9 494 1.234 1.065 89.8 528 1.199 1.077 1.069 89.6 1.233 1.088 95 (tip) 1.060 1.193 1.075 90.7 450 1.200 1.064 89.7 476 1.223 1.086 86.9 482 1.215 90.0 508 1.074 87 7 542 1.223 1.084 88.3 480 1.237 1.076 87.5 510 1.226 1.096 86.3 464 1.255 255° 68.2 573 1.171 1.047 90.3 462 1.154 1. 01! 88.2 503 1.157 1.018 89.0 494 1.208 1.015 5 (bub) 1.048 1.022 83.7 396 85.8 624 1.119 83.7 351 1.190 1.021 84.7 536 1.111 10 1.265 1.026 87.3 649 1.214 1.064 83.7 499 1.301 1.032 85.3 658 1.181 1.031 83.0 506 15 1.290 1.030 1.294 1.075 1.289 1.038 86.0 635 1.312 1.041 85.6 657 615 87.3 590 30 1.273 85.8 1.039 1.282 1.082 564 588 1.045 84.7 595 593 87.5 1.256 1.043 84.6 1.263 50 1.262 1.043 84. 0

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8C. 1

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601

582

562

594

1.252

1.254

1.238

1.255

95 (tip) 1.214

70

85

90

MR

<sup>1)</sup> Test environment: Po = 1999 psfa, To = 500.2 R

<sup>2)</sup> Vm calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant

<sup>5)</sup>  $\beta_{13} = \tan^{-1} \left[ \tan \beta_{13} / \cos \epsilon \right]$ 

Stator Discharge Circumferential Distributions  $W\sqrt{\theta/\delta} = 127.02$ Diek Drohe Station 13 80% Speed

Circumi	famontic I				Disk	r Probe	Station	n 13	80% Spe	ed		W	No 10 .			
Position		1	<u>81°</u>			45*			•		1.			10	<u>)5°</u>	
% Span	<u>P19/P0</u>	P <sub>13</sub> /Po	90 - 413	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po 5	90 - 913	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Fo	90 - 413	VM .	P <sub>13</sub> /Po	p <sub>13</sub> /Po	90 - 413	Vm
5 (hub)	1.140	1.974	103.0	330	1.128	1.113	101.1	155	1.133	1.105	99.8	217	1.167	1. 039	88.9	469
10	1.084	1.080	87.4	82	1.104	1.104	97. 0	12	1.102	1.101	88.7	31	1.218	1.048	85.8	528
15	1.068	1.068	74.7	0	1.098	1.098	86.4	0	1.095	1.095	83.2	0	1.276	1 054	85.7	596
30	1. 101	1.083	76.9	177	1.112	1.110	81.6	49	1.159	1.105	81.7	299	1.270	1.061	86.3	57 s
50	1.329	1.096	84.1	601	1.254	1.113	81.5	475	1.240	1. 113	85.6	456	1.257	1.065	84. 1	554
70	1.292	1.094	86.4	561	1.307	1.105	86.2	565	1.258	1.115	88.4	484	1.248	i. 059	86.6	553
85	1. 258	1.087	86.6	527	1.284	1.099	88.9	547	1.260	1.105	88.2	503	1.256	1.051	87.5	576
90	1.241	1.084	88.5	507	1.275	1.097	88.9	539	1.254	1.103	88.2	499	1.236	1.047	87.5	557
95 (tip)	1. 230	1.083	90.6	496	1.268	1.095	89.0	532	1.242	1.103	91.2	480	1.218	1. 044	87. 5	538
MR	1.267	1.090	86.2	534	1.266	1.104	86.1	510	1.235	1.109	87.4	456	1.250	1. 056	86.3	561
		141*				171*				1	95°			23	1.	
5 (hub)	1.158	1.085	94.0	352	1.171	1.077	92.6	397	1. 169	1.020	88.7	506	1.160	1.066	91.1	401
10	1.104	1.095	84.7	126	1.108	1.086	84.7	196	1.221	1.031	85. 5	561	1.107	1.075	84.2	235
15	1.103	1.097	81.4	100	1.116	1.090	81.9	210	1.278	1.036	85.4	623	1.158	1.077	83.0	370
30	1.268	1.105	84.9	506	1.278	1.099	84.9	531	1.268	1.044	86.4	603	1.295	1.091	86.5	567
50	1.266	1.107	84.9	503	1.276	1.102	84.8	<b>52</b> 2	1.248	1.046	84. 1	570	1.285	1.098	86.6	543
70	1.252	1.106	88.1	487	1.265	1.098	87.5	513	1.240	1.039	87.7	574	1.275	1.092	86. 5	<b>53</b> 8
85	1.250	1.097	87.9	501	1.260	1.090	89. 5	522	1.244	1.028	87.7	<b>594</b>	1.267	1.083	88.9	545
90	1.240	1.094	88. 0	493	1.251	1.086	89. 5	517	1.230	1.027	87.7	580	1.257	1.080	89. 0	536
95 (tip)	1.228	1.094	91.4	474	1.240	1.083	89.6	506	1.206	1.024	87.6	556	1.246	1.076	89. 1	528
MR	1.246	1.102	87.0	483	1.254	1.095	86.9	505	1.244	1.037	86.5	582	1.263	1.088	87. 1	531
		255°				<b>29</b> 1°				31	15*			34	5°	
5 (hub)	1.119	1.040	90. 0	373	1.125	1.113	1.08.2	133	1.133	1. 054	92.4	371	1.142	1. 064	97.0	367
10	1.001	1.046	85.3	282	1.099	1.099	96.9	0	1.087	1.066	86.3	194	1.065	1.073	88.5	144
15	1.148	1.053	84.0	403	1.067	1.087	79.9	0	1.081	1.070	83.1	141	1.065	1.065	81.1	25
30	1.289	1.059	84.9	605	1.09€	1.096	74.9	6	1.286	1.071	€ .2	583	1.163	1.071	80. 1	392
50	1.281	1.068	83.7	580	1. 314	1.118	82.6	551	1. 293	1.075	64.1	586	1.309	1.078	84. 2	601
70	1.268	1.062	86.6	574	1.313	1.116	86.9	555	1.271	1.073	86. 5	565	1.279	1.076	85.8	570
85	1.359	1.054	87.3	576	1.259	1.109	87.3	494	1.248	1.067	86.5	543	1.343	1.074	85.8	526
90	1.543	1.053	87.3	558	1.242	1.107	88.9	472	1.232	1.064	86.5	527	1.222	1.074	87.1	497
95 (tip)	1 098	1.053	57.3	548	1.236	1.106	91.4	465	1.223	1.067	87.7	511	1.215	1.074	88.7	490
MR	1.256	1.059	35.6	564	1.274	1.112	85.8	509	1.258	1.071	85. 5	551	1.248	1.075	85.3	531

<sup>1)</sup> Test environment: Po = 2015 pxfa, To = 500.7°R

<sup>2)</sup> Vm calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft
4) Relative position of circumferential distortion screen is in second quadrant
5)  $\beta_{13}^* = \tan^{-1} \left[ \tan \beta_{13}/\cos \epsilon \right]$ 

#### Stator Discharge Circumferential Distributions Disk Probe Station 13 90% Speed

	Disk Probe Station 13 90% Speed $W\sqrt{\theta/\delta} = 166.03$															
Disk Probe Station 13 90% S										ed		W 1	$\theta / \delta = 0$	166.03		
Position		2	<u>:1•</u>			4	<u>5°</u>			.8	11*		•	10		
% Span	P19/P0	P <sub>13</sub> /Po	90 - \$13	<u>Vm</u>	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - \$13	Vm	P <sub>13</sub> /Po	p <sub>13</sub> /Po	90 - 913	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - \$13	Vm
5 (hub)	1.156	1.019	93.9	494	1.115	. 996	89.8	469	1. 125	1.045	93.8	379	1. 147	1. 012	89.4	491
10	1.100	1.015	84.6	395	1.063	1.002	84.4	389	1.077	1.052	83.4	213	1. 121	1.015	84. 2	435
15	1.074	1.015	80.2	331	1.143	1.010	83.2	490	1.070	1.057	<b>79</b> . 5	151	1.243	1.026	84. 1	601
30	1.401	1.043	83.6	745	1.298	1.021	84. 6	676	1.257	1.069	85.2	564	1.241	1.034	87.4	595
50	1.372	1.049	85.9	713	1.324	1.025	84. 5	695	1.280	1.070	84.8	589	1.223	1. 038	85. <b>2</b>	567
70	1.338	1.042	87.8	688	1.312	1.011	87.3	701	1.272	1.065	88.0	586	1.229	1.032	87.6	585
85	1.336	1.026	89.8	706	1.315	. 999	90. 1	720	1.256	1.053	89.3	584	1.236	1.022	88.4	611
90	1.311	1.019	87.5	692	1.308	. 992	87.2	721	1.241	1.049	88.2	572	1.210	1.018	88.4	581
95 (tip)	1.290	1.022	89. 5	666	1.307	. 996	85.7	716	1.226	1.048	90. 2	554	1.193	1. <b>ù16</b>	88.4	563
MR	1.329	1.036	86.9	687	1.295	1.011	86.2	685	1.250	1.061	87.1	563	1.224	1. 028	87. 0	583
		141*				771	•			1	95°			23	11*	
5 (hub)	1.175	1.031	91.9	500	1.215	1.022	91.2	576	1.270	. 974	89.2	710	1.299	1. 017	89. 5	684
10	1.097	1.027	83.2	353	1.117	1.015	84. 0	428	1.298	. 965	85.8	719	1.232	1.020	84.0	599
15	1. 139	1.036	81.7	422	1.185	1.031	82.3	513	1.372	. 992	86.7	780	1.381	1.032	85.3	743
30	1.334	1.061	88.1	661	1.356	1.050	88.4	695	1.337	1.003	86.7	734	1.366	1.040	88. 2	719
50	1.295	1.966	86.7	613	1.317	1.053	86. 5	645	1.301	1.011	84.2	685	1.330	1.045	86.8	675
70	1.231	1.058	88.5	543	1.279	1.048	89. 1	612	1.281	,998	88.7	681	1.309	1.033	90. 1	667
85	1.212	1.048	88.5	534	1.261	1.034	89. 1	613	1. 237	. 985	91. 0	653	1.282	1.020	90. 1	655
90	1.188	1.043	88.8	506	1.236	1.030	89.3	588	1.213	. 978	89. 0	635	1.262	1.015	88.0	640
95 (tip)	1. 175	1.043	92.4	484	1.209	1.029	92.2	554	1.198	. 978	87.7	616	1.236	1.016	91.0	609
MR	1.246	1.054	87.9	568	1.279	1.043	88.2	621	1.287	. 995	87.4	694	1.318	1.032	88. 5	680
		255°				291	•			3	315°			34	5°	
5 (hub)	1.320	. 961	88.7	776	1.293	1.005	88.6	696	1.264	. 951	88.4	740	1.206	. 955	88.4	672
10	1.376	. 971	86.9	809	1. 297	1.016	84.2	683	1.334	. 967	86.5	781	1.185	. 961	84. 0	635
15	1.389	. 975	88.3	819	1.402	1.022	88.2	778	1.401	. 970	87.9	836	1.364	. 977	85. 0	<b>79</b> 6
30	1.349	. 996	86.2	756	1.380	1.031	87.9	743	1.366	. 990	86.9	778	1.368	. 987	86.4	783
50	1.324	1.001	84.1	722	1.341	1.036	86.7	698	1.334	. 998	84.3	736	1.338	. 999	84. 1	740
70	1.291	. 986	89.2	710	1.314	1.026	90. 5	683	1.310	. 961	88.6	734	1. 331	. 960	88.3	756
85	1.255	. 973	90.8	69G	1.293	1.008	90.4	684	1.275	. 967	91.0	718	1.290	. 964	91.0	737
90	1. 228	. 966	88.6	671	1.280	1.006	88.7	674	1.250	. 960	88.6	703	1.264	. 959	88.3	718
95 (tip)	1.210	. 966	87.4	650	1.252	1.007	90.8	641	1. 232	. 963	87.2	680	1.260	. 963	86.1	709
MR	1.305	. 984	87.5	728	1. 329	1.023	88.8	704	1.317	. 979	87.5	746	1.320	. 979	86. 9	750

Test environment: Po = 1972 psfa, T<sub>0</sub> = 494.1°R
 Vm calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant 5)  $\beta_{13}^* = \tan^{-1} \left[ \tan \beta_{13} / \cos \epsilon \right]$ 

Stator Discharge Circumferential Distributions  $W\sqrt{\theta/\delta} = 156.12$ Disk Probe Station 13 90% Speed

Circumi	fezentia l											• • •	•			
Position		<u>21</u>				45	<u>.</u>			<u>8</u>	<u>ı•</u>			10	05*	
% Span	P <sub>19</sub> /Po	P <sub>13</sub> /Po	90 - #13	Vn.	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 813	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 413	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 613	Vm
5 (hub)	1.155	1.090	104.0	327	1.135	1.070	93.4	340	1.149	1.104	100. 0	278	1. 146	1.075	91.0	356
10	1.095	1.093	87.9	57	1.095	1.081	87.5	1 56	1.109	1.107	87.2	60	1. 109	1.086	84.5	202
15	1.079	1.079	74.6	0	1.085	1.081	82.4	ŧ5	1.099	1.099	82.2	0	1.101	1.064	62.3	3 59
30	1.113	1.098	76.8	162	1.192	1.083	82.0	431	1.181	1.111	80.3	340	1.284	1.090	86.4	562
50	1.437	1.116	84.8	694	1.353	1.088	82.9	643	1.294	1.123	85.5	529	1.264	1.097	64. 1	525
<b>7</b> 0	1.390	1. 116	87.1	649	1.340	1.081	87.2	641	1.312	1.125	88.4	550	1.256	1.091	67. 1	529
85	1.369	1.106	89.3	642	1.351	1.073	88. 8	664	1.321	1.119	99. 2	571	1.270	1.081	87. 0	567
90	1.358	1.102	89.4	636	1.337	1.067	87.8	6 56	1.304	1.113	90. 3	560	1.249	1.076	87. 1	547
95 (tip)	1.348	1.099	89.4	630	1.319	1.067	87.9	641	1.290	1.109	90.4	548	1.235	1.077	88.0	525
MR	1.365	1.109	87. 0	632	1.313	1.079	85.9	614	1.284	1.119	87.7	521	1. 253	1.087	86.2	527
		141*				17	1.			19	5*			1	231°	
5 (hub)	1.191	1.075	94.8	443	7.213	1.068	93.0	496	1.256	1.023	89.2	625	1.273	1.067	89.7	563
10	1.113	1.079	84.2	245	1.124	1.063	64.2	327	1.306	1.036	85.9	659	1.202	1.066	84.7	480
15	1.115	1.087	80.8	219	1.135	1.070	81.5	335	1.362	1.043	36.0	707	1.334	1.086	83.6	624
30	1.844	1.105	86.7	609	1.360	1.095	87.1	641	t. 348	1.053	85.9	682	1.379	1.089	87.4	670
50	1.319	1.110	86. 9	576	1.339	1.102	87.3	605	319	1.057	94. 0	643	1.357	1.093	85. 5	639
70	1.288	1.104	87.0	548	1.304	1.093	87.0	577	1.310	1.047	€ <b>8.3</b>	649	1.323	1.066	87.7	612
85	1.257	1.094	89. 5	525	1.287	1.063	89.4	574	1.302	1.035	88.8	657	1.319	1.072	89. 2	626
90	1.244	1.092	89.6	509	1.261	1.078	89.6	548	1.287	1.029	87.2	648	1.297	1.069	89. 4	607
95 (tip)	1.236	1.089	89.7	501	1.240	1.075	91.6	524	1.257	1.026	87.3	619	1.268	1.063	<b>59</b> . 6	561
MR	1.281	1.100	87.6	543	1.296	1.089	87.8	575	1.313	1.044	86.7	657	1.332	1.083	87.3	627
		255° 1. 014				2	91°			31	1 <b>5</b> *			3	75*	
5 (hub)	1.216		88.7	591	1.220	1.052	90.7	536	1.152	1. 012	88.9	502	1.172	1.023	90. 5	515
10	1.308	1.028	85.4	670	1.146	1.049	84. 1	414	1. 131	1.021	84.3	445	1. 116	1.028	84.3	399
15	1.377	1.096	86.7	736	1.272	1.071	83.4	574	1.281	1.037	84. 1	436	1. 157	1.034	82.8	465
30	1.356	1.047	85.6	700	1.386	1.079	87.4	689	1.379	1.048	85. 9	719	1.404	1.051	85.3	739
50	1.345	1.055	83. 5	673	1.371	1.086	85. 5	663	1.350	1.057	84.0	677	1.357	1.059	84.2	683
70	1.327	1.046	88.2	669	1.335	1.080	88.2	635	1.334	1.042	88.0	682	1.342	1.049	87.8	663
85	1.326	1.033	88. 5	685	1.331	1.064	90.0	651	1.335	1.034	89. 2	694	1.346	1.039	89. 0	700
90	1.307	1.027	86. 9	675	1.311	1.063	90. 1	634	1.321	1.031	86.9	584	1.325	1.032	86.6	687
95 (tip)	1.280	1.025	86. 9	648	1.284	1.059	90.3	606	1.293	1.027	56.4	661	1.301	1.029	85.9	667
MR	1.330	1.041	86.4	680	1.335	1.075	87.7	643	1.330	1.042	96. 4	680	1.333	1.045	86.2	679

Test environment: P<sub>0</sub> = 1969 psfa, T<sub>0</sub> = 498.0°R
 Vm calculation is based on standard-day inlet pienum conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sub>13</sub> = tan<sup>-1</sup> [tan β<sub>13</sub>/cos ε]

#### Stator Discharge Circumferential Distributions $W\sqrt{\theta/\delta} = 148.96$ Disk Probe Station 13 90% Speed

Circumf	erentie l				Disk	PLODE	Station	113	90% Spe	ea		A A	10 10			
Position	01 02(12)	21	•			4	<u>5</u> °				<u>81°</u>			•	105°	
% Span	P <sub>13</sub> /Pc	P <sub>13</sub> /Po	90- s <sub>13</sub>	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 413	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 413	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 13	Vm
5 (hub)	1.150	1.11€	106.2	233	1.154	1.113	98.7	264	1. 154	1. 123	103.2	228	1. 145	1.103	93. 5	269
10	1.105	1.105	92.7	0	1.114	1.113	89.4	34	1. 113	1.113	89. 4	0	1.113	1.110	84. 9	66
15	1.092	1.092	76.3	0	1.105	1.105	80. 5	0	1.106	1.106	61.7	0	1.128	1.116	81.9	130
30	1.113	1.111	75.6	62	1.167	1.116	80.4	293	1. 180	1.123	80.2	308	1.308	1.114	65. 9	552
50	1.432	1.130	83.1	670	1.357	1.124	82. 8	602	1.302	1.134	84.6	521	1.278	1.123	85.0	502
70	1.426	1.130	86.0	667	1.378	1.119	86.7	633	1.324	1.136	87.8	551	1.283	1.117	87.4	524
85	1.384	1.122	88.9	638	1.369	1.110	89. 1	637	1.327	1.125	87.5	570	1.291	1.107	87.2	556
90	1.366	1.116	89.0	628	1.363	1.104	88.0	641	1.316	1.120	87.5	563	1.279	1.103	87.4	545
95 (tip)	1.356	1.114	89.0	621	1.356	1.104	88.0	636	1.302	1.120	90.4	546	1.268	1.102	87.4	532
MR	1.381	1. 124	85.9	630	1.339	1.115	86.0	596	1.294	1.129	86.7	519	1.278	1.114	86. 5	520
		<u>141</u> °				17	<u>'1</u> *				195°			2	31.	
5 (hub)	199	1.095	94. 1	416	1.228	1.097	92.5	467	1.234	1.034	s9. 5	582	1.225	1.080	91. 5	493
10	1.123	1.106	84.5	168	1.144	1.088	85.2	310	1.294	1.048	86. 0	631	1.154	1.080	84.9	356
15	1.127	1.111	81.2	161	1.176	1.097	82.5	363	1.356	1.054	86.0	688	1.238	1.095	83.2	486
30	1.354	1.124	85.3	592	1.362	1.116	85.9	615	1.350	1.064	85.9	670	1.376	1.106	86.4	645
50	1.338	1.129	85.4	571	1.351	1.124	86.0	589	1.334	1.071	83.6	641	1.366	1.116	86. 5	619
70	1.315	1.122	85.4	555	1.332	1.114	86.0	580	1.324	1.061	87.0	644	1.350	1.107	86.5	613
85	1.309	1.114	88.6	562	1.318	1.103	88.5	582	1.322	1.051	88.4	658	1.339	1.094	88. !	619
<b>9</b> 0	1.295	1.110	88.6	553	1.304	1.099	88.6	572	1.308	1.043	86.8	652	1.325	1.089	88.4	612
95 (tip)	1.276	1.104	88.8	536	1.290	1.094	88.6	562	1.285	1.042	86.8	629	1.315	1.085	88. 5	606
MR	1.309	1. 119	86.4	550	1.319	1.111	86.7	571	1.325	1.057	86.2	651	1.338	1.102	86.9	607
		255°				2	<u>91</u> °			:	315°			3	45°	
5 (hub)	1.153	1. 038	91.2	451	1.149	1.088	98.9	323	1. 143	1.074	95.3	347	1. 142	1.102	99. 5	262
10	1.112	1.046	85.4	344	1.095	1.093	85.0	53	1.090	1.084	86.4	107	1.091	1.089	87.7	52
15	1.182	1.052	83.3	471	1.082	1.082	79.9	0	1.080	1.080	82.7	37	1.075	1.075	81.0	0
30	1.370	1.066	85.2	689	1.233	1.103	81.3	460	1.306	1.087	82.4	590	1.196	1.091	80.7	418
50	1.360	1.077	82.9	661	1.384	1.122	85.0	632	1.381	1.092	83.7	665	1.405	1.105	84.3	674
70	1.341	1.069	86.2	654	1.376	1. 122	86.9	623	1.356	1.089	86.5	646	1.370	1.104	86. 9	642
85	1.346	1.062	87.4	670	1.376	1.112	88.6	639	1.359	1.083	87.6	658	1.370	1. 097	88.2	654
90	1.333	1.058	86.7	662	1.366	1.106	88.6	637	1.344	1.075	87.0	654	1.357	1.091	87.3	649
95 (tip)	1.313	1. 052	86.7	651	1.359	1.103	88.6	635	1.339	1. 078	86.8	645	1.346	1.089	87.3	641
MR	1.331	1.065	85. 5	650	1.346	1.113	86.5	603	1.341	1.086	85.5	635	1.346	1.098	85.9	624
	T. 201	A. 000	00.0	0.00	1.040	7. 470	04. D	000	1.021	1.000	. J	000	A. 0-40	* . 000	00.0	~~7

Test environment: P<sub>O</sub> = 1997 psfa, T<sub>O</sub> = 501.2°R
 Vm calculation is based on standard-day-inlet-plen un conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sup>a</sup><sub>13</sub> = tan<sup>-1</sup> [ tan β<sub>13</sub>/cos ε]

Stator Discharge	Circumfe	erential	Distributions
Disk Probe St	ation 13	95% Sp	eed

	Stator Discharge Circumferential Distributions  Disk Probe Station 13 95% Speed $W\sqrt{\theta/\delta} = 174.19$															
Circumfe	erentia l				Disk	Prob	e Statio	n 13	95% Sp	eed		w√	$\frac{1}{\theta} / \delta \approx 17$	4. 19		
Position	or cution.	21.				4	<u>15°</u>			8	<u>1•</u>	•	•		)5°	
% Span	P <sub>13</sub> /Po	p <sub>13</sub> /Po	90 - 413	Vm	P <sub>13</sub> /Po		90 - 13	Vm	P <sub>13</sub> /Po		90 - \$13	Vm	P <sub>13</sub> /Po		90 - 413	Vm
5 (hub)	1.165	1.016	94. 7	516	1.122	. 994	90. 2	489	1. 128	1.044	94.6	387	1. 162	1. 011	89. 7	521
10	1.097	1.011	84.7	399	1.033	. 999	84.6	397	1.078	1.051	83 7	222	1. 125	1.015	84.2	444
15	1.068	1.011	80.1	328	1.143	1.008	83.4	496	1.067	1.057	<b>79</b> . 5	139	1.261	1.028	84. 0	623
30	1.437	1.036	83.9	788	1.330	1.020	85.1	714	1.275	1.070	84.2	589	1.268	1.036	87.6	628
50	1.421	1.048	86. 1	763	1 351	1.023	85.1	729	1.311	1.074	85.7	624	1.238	1.041	85.7	586
<b>7</b> 0	1.379	1.037	88.5	737	1.349	1.010	88.3	742	1.308	1.069	87.8	627	1.245	1.034	87.8	607
85	1.373	1.019	88.2	753	1.384	. 997	90. 5	770	1.290	1.055	87.7	626	1.243	1.022	87.8	621
90	1.347	1.016	86.9	734	1.354	. 989	88.2	771	1.268	1.053	87.9	603	1.209	1.020	87.8	581
95 (tip)	1.322	1.020	89.1	706	1.541	. 994	87.4	756	1.252	1.050	88.0	589	1. 191	1.019	88.7	558
MR	1.366	1.032	86.9	733	1.328	1.009	87.0	725	1.278	1.064	86.6	599	1.238	1.031	87.1	601
		141*				17	71*			19	95*			2	31°	
5 (hub)	1.197	1.035	92.4	530	1.232	1.022	91.6	601	1.300	. 967	89.4	753	1.337	1.014	89.6	731
10	1.114	1.032	83.7	384					1.335	.980	86.4	765	1.278	1.019	84.2	659
15	1.150	1.041	82.0	436	1.408	1.050	87.7	747	1.419	. 986	87.7	829	1.438	1.028	85.7	801
30	1.386	1.066	88.4	709	1.368	1.057	85.8	695	1.380	1.003	87.6	777	1.422	1.039	87.6	773
50	1.337	1.074	86. 5	653		1.051	79. 0		1.337	1.014	85.3	721	1.378	1.046	85.4	721
70	1.241	1.066	88.7	547	1.294	1.049	88.6	631	1.303	. 997	89.3	709	1.345	1.035	89. 5	703
85	1.199	1.055	89. 0	505	1.264	1.039	88.7	612	1.245	. 984	91.5	665	1. 294	1.025	89.8	664
90	1.182	1.053	89.2	482	1.232	1.034	89. 0	579	1. 221	. 977	89. 0	647	1.261	1.019	88.1	637
95 (tip)	1. 173	1.050	89.3	471	1.207	1.032	91.6	548	1.205	. 977	87.8	629	1.234	1. 018	90. 5	606
MR	1.270	1.061	87.8	592	1.369	1.076	89.6	676	1.316	. 995	88.1	726	1.355	1.033	87.9	719
		255° . 945				29	91*			9.	15°			3.	15°	
5 (hub)	1.356	. 945	89. 1	829	1.337	. 997	88.6	754	1.285	. 937	88.9	782	1.218	. 944	88.7	706
10	1.416	. 958	88.1	861	1.352	1.009	84.9	750	1.352	. 955	87.0	818	1. 426	. 977	87.0	845
15	1.429	. 960	89.2	872	1.454	1.010	87.7	838	1.442	. 955	88.4	889	1.381	. 954	84.9	789
30	1.394	. 988	87.2	807	1.441	1.023	86.5	806	1.415	. 979	87.7	835	2,002		78.0	
50	1.363	. 996	85.2	768	1.396	1.034	85. 5	754	1.378	. 993	84. 9	786			78.1	
70	1.326	. 978	89.6	756	1.362	1.019	89.9	741	1.354	. 970	89.6	791	1.376	. 968	89.8	813
85	1.277	. 968	91.3	724	1.316	1.003	88.6	716	1.299	. 956	91.5	758	1.370	. 957	91.9	785
90	1.248	. 959	88.8	704	1.288	1.003	88.8	690	1. 263	. 961	89. 3	731	1.303	. 953	89. 0	767
95 (tip)	1.231	. 961	87.3	684	1.257	. 998	89.1	665	1.246	. 954	87. 6	710	1. 299	. 953 . 957	86.0	758
MR	1.340	. 976	88.1	773	1.373	1.016	87.8	756	1.354	. 969	88.1	710 795	1. 200	. 531	90. V	1 30
							0110		* · O O T		00.4					

Test environment: P<sub>O</sub> = 1957 psfa, T<sub>O</sub> = 498.2°R
 Vm calculation is based on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft
 Relative position of circumferential distortion screen is in second quadrant
 β<sup>1</sup><sub>13</sub> = tan<sup>-1</sup> [tan β<sub>13</sub>/cos ϵ]

#### Stator Discharge Circumferential Distributions Disk Probe Station 13 95% Speed

 $W_{\bullet}/a/s = 162.90$ 

Circumf	amantia l				Disk	Probe	Station	13	95% Spe	ed		w 1	10 10	.02.00		
Position		21	•				4.80						•			
% Span	P_13/Po		90 - 5	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 8°	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - <b>6</b> *.	Vm	P <sub>13</sub> /Po	P. /Po	90 - 43	Vm
				242	13/					13/	13	222				
5 (hub)	1.152	1.117	104.8		1.160	1.091	96. 1	349	1. 163	1. 131	107.6		1. 164	1.094	92.5	348
10	1.106	1.108 1.093	90. 3 76. 3	0	1.112	1.100	88.5	149	1.118	1.118	91.8	0	1.118	1.106	84.8	146
15	1.093			0	1.096	1.095	82.2	40	1.109	1.109	79. 4	-	1.140	1.106	81.8	241
30	1.123	1.113	76.9	126	1.210	1.100	81.3	430	1.158	1.136	78.8	192	1.320	1.108	86.9	561
50	1.475	1.135	84.5	711	1.390	1.108	83.6	661	1.328	1.142	85. 1	549	1.293	1.114	85.2	542
70	1.447	1.133	87.6	689	1.366	1.102	88.1	647	1.362	1.143	87. 5	589	1.287	1.109	87.3	547
85	1.427	1.121	89.6	687	1.399	1.094	88.0	691	1.356	1.133	88.9	598	1.302	1.099	87.3	586
90	1.419	1.120	89.6	682	1.391	1.088	87.6	692	1.345	1.129	88.9	591	1.280	1.094	87.3	564
95 (tip) MR	1.412	1.115	89.6	683	1.371	1.087	87.6	674	1.328	1.125	90. 2	577	1.264	1.095	88. 9	543
MIN	1.416	1. 127	37.1	664	1.350	1.099	86.2	634	1.326	1. 137	87.3	554	1.283	1.106	86.8	545
		141°					171*			19	<u>95</u> °			2	31°	
5 (hub)	1.212	1.092	94.3	448	1.247	1.083	92.8	523	1.288	1.026	90.1	662	1.315	1.076	89.8	624
10	1.130	1.094	83.8	249	1.149	1.078	84.7	3 53	1.346	1.040	86.9	703	1.252	1.078	85. 0	538
15	1.132	1. 101	81.0	228	1.172	1.085	82. 1	382	1.407	1.046	87.6	752	1.404	1.091	84.8	695
30	1.386	1.117	87.3	640	1.400	1.107	87.1	670	1.395	1.059	86. 9	727	1.420	1.096	87.6	704
50	1.362	1.124	87.5	611	1.380	1.115	87.3	635	1.360	1.067	85. 1	682	1.396	1.100	85. 6	673
70	1.327	1.119	87.7	579	1.346	1.105	86. 6	612	1.357	1. 058	87.4	693	1.361	1.092	87.6	648
85	1.299	1.109	90.6	561	1.325	1.094	88.4	607	1.359	1.043	88.7	715	1.360	1.076	87.4	668
90	1.285	1.106	90.7	547	1.294	1.088	88.6	578	1,348	1.043	87. 0	707	1.338	1.073	87. 5	650
95 (tip)	1.273	1.102	90.8	539	1.276	1.088	91.2	556	1.305	1.035	87.2	674	1.305	1.071	90. 5	617
MR	1.320	1.114	88.3	575	1.335	1.102	87.5	606	1.361	1.053	87.1	704	1.374	1.089	87.2	667
		265					291*			• 1	15°				45*	
5 (hub)	1.161	255° 1.038	92.9	468	1.203	1.064	94. 7	489	1.144	1.044	93. 2	426	1. 166	1.047	94.4	460
10	1.118	1.042	86.5	370	1.117	1.061	85.1	319	1.098	1.047	86. 0	305	1. 109	1. 051	86.7	325
15	1. 181	1.051	84.0	475	1.126	1.068	82.3	324	1. 116	1.054	83.3	335	1. 101	1. 053	82.4	296
30	1.398	1. 063	85.6	723	1.421	1.091	85.6	711	1.403	1.069	84. 9	722	1.388	1.071	83.5	704
50	1.407	1.077	84.7	711	1.432	1.102	85. 5	706	1.409	1.077	85. 0	714	1. 428	1.061	85.4	728
70	1.387	1.074		697	1.406	1. 094	86.8	692	1.393	1.074	86. 9	703	1. 424	1.060	87.0	726
85	1.396	1.064	86.9	718	1.392	1.079	88.0	698	1.409	1.066	87.8	728	1. 428	1.070	88.6	743
90	1.380	1.058	87.7	712	1.382	1.075	88. 1	693	1.386	1.061	86.9	715	1.396	1.063	87.6	723
95 (tip)		1.056	87.2	696	1.383	1.074	88.8	687	1.356	1.055	87. 1	696	1.378	1.066	87.3	704
MR	1.358		87.3							1.068		696	1.376	1.073	86. 4	706
	1.371	1.066	86.3	693	1.385	1.088	86.8	681	1.376	1. UO5	86.3	080	T. 22T	1. U/O	00. <del>1</del>	100

<sup>1)</sup> Test environment:  $P_0$  = 1978 psfa,  $T_0$  = 493.6°R 2) Vm calculation is based on standard-day inlet-plenum conditions

<sup>3)</sup> Circumferential reference position is TDC looking aft
4) Relative position of circumferential distortion screen is in second quadrant
5)  $\beta_{13}^{\circ} = \tan^{-1} \left[ \tan \beta_{13} / \cos \epsilon \right]$ 

Stator Discharge Circumferential Distributions  $W_{\lambda} \sqrt{\frac{1}{6}} / \delta = 159.93$ Disk Probe Station 13 95% Speed

Circumferential				Disk	Prope	Station	1 13	95% Sp	eea		W V	9	,,,,,,			
Position	er entre i	<u>21</u> °				4	<u>5</u> •		1	8	<u>11°</u>		•		105"	
% Span	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 613	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - \$ 13	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - \$13	Vm	P <sub>13</sub> /Po	P <sub>13</sub> /Po	90 - 13	Vm
5 (hub)	1.151	1.110	104.2	260	1.174	1.116	99. 5	314	1.159	1.130	106.1	216	1. 146	1.114	95.3	234
10	1.103	1.103	89.7	0	1.126	1.123	89.4	78	1.115	1.115	90.6	0	1.113	1.113	84.4	27
15	1.089	1.089	76. <b>4</b>	0	1.110	1.110	81.2	0	1.109	1.109	79. 9	0	1.125	1.122	81.1	72
30	1.115	1.107	75.9	115	1.179	1.121	80.3	313	1. 167	1.130	<b>79</b> . 6	249	1. 333	1.124	86.5	574
50	1.465	1.126	84.8	713	1.393	1.128	83.6	640	1.332	1.140	85.7	556	1.303	1.131	85.7	529
70	1.445	1.128	87.4	693	1.386	1.123	88.4	642	1.363	1.142	87.9	592	1.306	1.125	88.0	549
85	1.426	1.115	89. 1	692	1.408	1.115	88.3	676	1.360	1.132	89. 0	604	1.320	1.116	88. 0	584
90	1.414	1.114	89.2	685	1.405	1.109	87.6	682	1.345	1.128	89. 1	593	1.301	1.111	88.0	568
95 (tip)	1.406	1.110	89.2	684	1.388	1.108	87.7	669	1.330	1.125	90.7	580	1.289	1.109	88.0	556
MR	1.411	1.120	86.9	671	1.365	1.119	86.4	623	1.326	1.135	87.5	556	1.303	1.122	67.1	547
		141°				17	<u>1</u> •			19:	<u>5</u> °			23	31°	
5 (hub)	1.223	1.103	94. 3	446	1.277	1.094	92. 5	547	1.302	1.024	89. 9	679	1.258	1.080	91.5	545
10	1.13?	1.108	83.9	203	1. 176	1.089	85.3	385	1.358	1.036	87.0	715	1.166	1.077	85. 4	393
15	1.146	1.110	81.2	247	1.233	1.100	83.3	468	1.406	1.041	87.8	755	1.292	1.096	83.8	563
30	1.388	1. 129	87.5	627	1.400	1.115	87.4	661	1.389	1.054	87.0	724	1.428	1.106	87_5	701
50	1.369	1. 135	87.6	604	1.385	1.122	87.5	632	1.351	1.061	85.0	676	1.408	1.116	87.7	666
70	1.344	1.130	87.7	585	1.358	1. 113	87.6	616	1.348	1.050	87.9	685	1.391	1.103	86.8	664
85	1.329	1.121	89.3	582	1.341	1.097	87.5	620	1.350	1.037	89.0	705	1.380	1.090	88.6	671
90	1.310	1.115	8 <b>9. 4</b>	568	1.325	1.093	87.6	608	1.332	1.032	87.1	695	1.364	1.088	88.7	660
95 (tip)	1.294	1.109	89.5	556	1.308	1.094	90. 5	587	1.295	1.027	87.1	663	1.353	1.063	88.7	655
MR	1.334	1. 125	88.0	577	1.349	1.109	87.7	612	1.354	1.046	87.3	698	1.381	1.100	87.5	660
		255° 1.026				29	1.			31	5 <b>*</b>			34	15*	
5 (hub)	1.19	1.026	91.1	539	1.155	1.097	101.4	313	1. 137	1.095	98.6	271	1. 147	1.093	100.2	304
10	1.158	1.034	85.6	468	1.097	1.097	86.8	1	1.095	1.094	88.5	42	1. 101	1.100	90.3	44
15	1.272	1.049	84.2	609	1.087	1.087	81.3	0	1.085	1.085	84.5	0	1.085	1.085	83.9	0
30	1.404	1.062	86.4	731	1.216	1.110	81.2	419	1.229	1.096	82.2	471	1.179	1.097	81.3	374
50	1.405	1.070	84.4	717	1.440	1.131	85.7	682	1.429	1.106	85. 0	699	1.452	1.113	85.4	714
70	1.385	1.065	86.9	705	1.435	1.133	87.5	674	1.412	1.109	87.6	681	1.429	1.111	87.9	696
85	1.395	1.055	87.8	728	1.437	1.120	89.0	695	1.414	1.100	88.3	697	1.440	1.106	89. 1	715
90	1.377	1.051	87.0	717	1.427	1.117	89.2	689	1.404	1.093	87. 1	696	1.413	1.098	88.0	701
95 (tip)	1.352	1.046	87.0	701	1.416	1.113	89.2	686	1.391	1.093	87.1	686	1.397	1.098	87. 9	687
MR	1.375	1.059	86.3	705	1.398	1.123	87.1	651	1.381	1.102	86.4	661	1.396	1.106	87.0	671

Test environment: P<sub>0</sub> = 1982 psfa, T<sub>0</sub> = 494.8°R
 Vm calculation is eased on standard-day inlet-plenum conditions
 Circumferential reference position is TDC looking aft

<sup>4)</sup> Relative position of circumferential distortion screen is in second quadrant 5)  $\beta_{13}^{\circ} = \tan^{-1} \left[ \tan \beta_{13} / \cos \epsilon \right]$ 

 $W\sqrt{\theta}/\delta = 147.35$ Stator Discharge Circumferential Distributions Temperature Rakes, Station 13, 80% Speed Circumferential Position 25° 45° 85° 1150 135° 175° 195° 235° 255° 285° 325° 345° % Span T<sub>13</sub>/T<sub>0</sub>  $T_{13}/T_0$   $T_{13}/T_0$ T<sub>13</sub>/T<sub>0</sub>  $T_{13}/T_0$   $T_{13}/T_0$  $T_{13}/T_{0}$  $T_{13}/T_{0}$  $T_{13}/T_{0}$  $T_{13}/T_{0}$  $T_{13}/T_{0}$  $T_{13}/T_{0}$ 5 (hub) 1,0841 1.0746 1.0814 1.0831 1.0865 1.0904 1.0978 1.0922 1.0883 1.0776 1.0922 1.0974 10 1.0851 1.0729 1.0705 1.0770 1.0787 1.0830 1.0859 1.0931 1.0957 1.0886 1.0866 1.0924 15 1.0884 1.0747 1.0731 1.0849 1.0847 1.0924 1.0939 1.0982 1.1001 1, 1007 1,0946 1.0977 30 1.1101 1.0943 1.0806 1.0776 1.0801 1.0845 1.0830 1.0837 1.0853 1.0908 1.0951 1.0874 50 1.0989 1.1042 1.0897 1.0655 1.0725 1.0763 1.0774 1.0808 1.0814 1.0825 1.0864 1.0880 70 1.0721 1.0712 1.0757 1.0802 1.0608 1.0873 1. 1076 1.0931 1.0696 1.0668 1. 9755 1.0741 85 1.0988 1.0901 1.1020 1.0746 1.0658 1.0718 1.0692 1.0739 1.0719 1.0734 1.0784 1.0780 90 1.0930 1.1046 1, 1022 1.0767 1.0672 1.0737 1.0706 1.0733 1.0743 1.0808 1.0792 1.0759 95 (tip) 1.0969 1.0761 1.0838 1.0828 1.1114 1.1043 1.0769 1.0697 1.0752 1.0729 1.0750 1.0783 1.0804 1.0861 1.0949 1.0995 1.0894 1.0737 1.0728 1.0779 1.0771 1.0814 1.0821 1.0859 Test environment: Po = 1989 psfa, To = 499.6°R  $W\sqrt{\sigma/\delta}=136.69$ 1.0874 5 (hub) 1.0902 1.0781 1.0763 1.0817 1.0822 1.0860 1.0859 1.0882 1.0920 1.0940 1,0886 1.0870 1,0723 1.0714 1.0755 1.0762 1.0809 1.0796 1.0859 1.0875 1.0879 1.0832 1,0828 10 15 1.0839 1.0699 1.0694 1.0779 1.0782 1.0866 1.0871 1.0925 1.0931 1.0948 1.0833 1.0843 1.0807 1.0765 1.0846 1,0832 1.0871 1.0850 1.0871 1.0966 1. 1023 30 1.0898 1.0789 1.0802 50 1. 1082 1.0993 1.0885 1.0706 1.0751 1.0797 1.0783 1.0818 1.0814 1.0825 1.0912 1,0914 1.0796 1.0885 1.0871 70 1. 1033 1. 1112 1.0943 1.0695 1.0706 1.0763 1.0758 1,0789 1.0782 1, 1056 1. 1137 1.1025 1.0757 1.0719 1.0781 1.0765 1.0808 1.0784 1.0802 1.0933 1.0899 90 1, 1062 1. 1158 1.1062 1.0785 1,0744 1.0806 1.0778 1.0837 1.0802 1.0824 1.0970 1.0931 95 (tip) 1.1094 1.1075 1.0797 1.0831 1.0808 1.0860 1.0832 1.0858 1. 1027 1.0986 1, 1189 1.0771 1. 1011 1.0835 1.0998 1.0896 1.0752 1.0807 1.0794 1.0825 1.0843 1.0922 1.0747 Test environment: Po = 1999 psfa, To = 500.2°R  $W\sqrt{\theta}/\delta = 127.02$ 1.0921 5 (hub) 1.0870 1.0751 1.0766 1.0800 1.0815 1.0848 1.0859 1.0870 1.0913 1.0931 1.0904 1.0866 1.0732 1.0714 1,0740 1.0745 1.0792 1.0788 1,0798 1.0825 1,0909 1,0829 1.0900 1.0855 1.0718 1.0689 1.0739 1.0761 1.0844 1.0840 1.0826 1.0840 1.0891 1.0813 1.0898 1.0845 1.0847 1.0898 1.0900 1.0884 1.0938 1.0914 1.0859 1.0748 1.0706 1.0816 1.0799 1, 1028 1.0923 1.0867 1.0732 1.0768 1.0810 1.0802 1,0837 1.0837 1.0960 1.0869 1. 1026 70 1.1078 1.0871 1.0981 1.1091 1.0951 1.0717 1.0727 1.0772 1.0777 1.0821 1.0842 1.0956 1.0822 1.0885 1.0884 1.1025 1.0949 1.1056 1.1086 1, 1182 1, 1035 1.0797 1.0749 1.0807

1.0929

1.0981

1.0867

1.0928

1.0984

1.0875

1.1049

1.1117

1.0968

1.0987

1.1062

1.0910

1.1088

1.1145

1, 1002

Test environment: Po = 2015 psfa, To = 500.7°R

1. 1187

1.1199

1.0983

1, 1067

1.1086

1.0891

1.0829

1.0858

1.0770

1.0770

1.0809

1.0765

1.0846

1.0887

1.0856

1.0906

1.0818 1.0823

1.1084

1. 1016

95 (tip) 1.1107

$W\sqrt{\theta/\delta} = 166.03$ Stator Discharge Circumferential Distributions													
Circumferential Temperature Rakes, Station 13, 90% Speed													
Position		<u>45°</u>	<u>85*</u>	<u>115</u> •	<u>135</u> °	<u>175°</u>	<u>195°</u>	235°	<u>255*</u>	285*	<u>325°</u>	345°	
% Span	$\frac{T_{13}/T_0}{}$												
5 (hub)	1. 1057	1.1009	1.0964	1.1039	1.1080	1. 1126	1.1168	1. 1181	1. 1219	1. 1246	1.1143	1.1132	
10	1. 1058	1.0945	1.0912	1.0993	1, 1016	1. 1083	1. 1115	1, 1187	1. 1211	1. 1249	1. 1087	1. 1110	
15	1. 1077	1.0962	1.0914	1. 1064	1. 1067	1. 1187	1. 1206	1. 1247	1. 1272	1. 1280	1. 1222	1. 1198	
30	1. 1383	1. 1195	1. 1046	1. 1007	1. 1012	1. 1071	1. 1054	1. 1094	1. 1062	1. 1080	1. 1153	1. 1175	
50	1, 1223	1. 1302	1. 1166	1.0847	1.0912	1.0971	1. 1005	1. 1028	1. 1043	1. 1066	1. 1103	1. 1107	
70	1. 1116	1. 1354	1. 1189	1.0871	1.0839	1.0898	1.0914	1.0952	1.0927	1.0966	1. 1028	1. 1018	
85	1. 1128	1. 1281	1. 1241	1.0935	1.0823	1.0899	1.0888	1.0936	1.0899	1.0927	1. 1014	1. 1003	
90	1. 1169	1. 1280	1. 1280	1.0952	1.0829	1.0920	1.0897	1.0959	1.0904	1.0941	1. 1049	1. 1026	
95 (tip)	1. 1232	1. 1343	1. 1301	1.0955	1.0851	1.0929	1.0919	1.0981	1.0936	1.0963	1.1082	1. 1069	
MR	1. 1189	1. 1248	1, 1141	1.0930	1.0915	1.0984	1. 0988	1.1030	1. 1018	1. 1036	1.1092	1. 1088	
Test en	viro <b>nm</b> ant	: Po = 19	72 psfa, T	o = 494. 1°	R								
WVO	$\delta = 15$	6.12											
5 (hub)	1. 1149	1, 1035	1.0968	1. 1036	1. 1036	1.1090	1, 1115	1. 1148	1. 1174	1. 1193	1.1142	1. 1117	
10	1. 1125	1.0967	1,0912	1.0965	1.0960	1, 1028	1, 1053	1, 1120	1. 1125	1.1107	1.1079	1. 1065	
15	1, 1104	1.0939	1.0885	1.0980	1.0976	1, 1090	1, 1140	1. 1185	1. 1198	1. 1202	1. 1053	1. 1054	
30	1. 1139	1. 1073	1.0976	1.1028	1. 1012	1, 1069	1, 1054	1. 1098	1.1089	1, 1124	1.1134	1. 1284	
50	1, 1406	1. 1264	1. 1142	1.0884	1.0948	1.1030	1,0996	1, 1037	1. 1031	1, 1059	1.1170	1. 1182	
70	1. 1327	1. 1388	1. 1215	1.0906	1.0883	1.0952	1,0968	1. 0997	1.0982	1, 1013	1.1127	1, 1111	
85	1. 1302	1. 1487	1. 1298	1.0969	1.0904	1.0959	1,0968	1, 1008	1.0984	1. 1019	1. 1179	1. 1124	
90	1, 1341	1. 1508	1. 1328	1.0996	1.0926	1,0992	1,0996	1. 1043	1. 1001	1, 1047	1. 1213	1. /154	
95 (tip)	1. 1397	1. 1545	1. 1349	1. 1006	1.0956	1. 1018	1, 1020	1. 1064	1.1041	1. 1087	1. 1268	1. 4219	
MR	1. 1293	1. 1288	1. 1146	1.0955	1.0943	1. 1014	1. 1012	1. 1053	1.1044	1. 1075	1. 1156	1. 1164	
Test env	/ironment:	P <sub>o</sub> = 196	9 psfa, T	= 498.0°E	1								
$W\sqrt{a}$	$\delta = 14$	8.96	•										
5 (hub)	1. 1124	1, 0992	1.0966	1. 1010	1. 1042	1. 1089	1, 1101	1, 1129	1. 1157	1. 1157	1. 1139	1.1157	
10	1, 1106	1.0949	1.0909	1.0937	1.0962	1. 1019	1, 0999	1. 1027	1.1031	1. 1055	1. 1115	1. 1123	
15	1, 1090	1.0932	1.0884	1.0928	1.0985	1. 1073	1, 1071	1. 1027	1. 1012	1. 1022	1. 1107	1. 1118	
30	1. 1102	1. 0990	1.0924	1. 1024	1.1011	1. 1069	1.1086	1.1132	1.1159	1. 1138	1.1105	1. 1147	
50	1. 1370	1.1236	1.1118	1.0915	1,0964	1. 1013	1. 1022	1. 1065	1. 1068	1.1104	1.1189	1. 1240	
70	1. 1379	1, 1392	1. 1224	1.0914	1.0903	1.0967	1.0985	1.1048	1. 1050	1. 1083	1.1168	1. 1181	
85	1. 1321	1.1531	1.1302	1.0980	1,0920	1.0997	1. 1017	1.1103	1.1112	1.1149	1. 1238	1, 1236	
90	1, 1348	1.1565	1, 1340	1.1014	1.0953	1. 1037	1, 1050	1, 1144	1.1135	1.1182	1. 1277	1. 1286	
95 (tip)	1.1400	1.1589	1. 1364	1. 1039	1.0989	1.1075	1, 1103	1.1192	1.1190	1. 1250	1. 1323	1. 1374	
MR	1. 1295	1.1296	1. 1145	1.0962	1.0957	1. 1023	1. 1037	1. 1092	1. 1098	1, 1124	1. 1186	1. 1214	

Test environment:  $P_0 = 1997 \text{ psfa}$ ,  $T_0 = 501.2 \text{ R}$ 

1. 1212

1.1200

1. 1248

1.1306

1. 1396

1.1239

1. 1214

1.1187

1, 1252

1, 1300

1. 1361

1, 1232

1. 1244

1, 1227

1. 1292

1. 1343

1.1427

1.1260

1. 1321

1. 1292

1. 1348

1, 1403

1.1478

1, 1310

1. 1347

1. i308

1. 1371

1. 1434

1.1538

1. 1338

Test environment: Po = 1982 psfa, To = 494.8°R

1, 1383

1.1530

1. 1700

1, 1733

1, 1770

1. 1451

1. 1248

1, 1378

1. 1446

1. 1485

1. 1518

1. 1279

1, 1001

1, 1007

1.1074

1, 1114

1, 1130

1, 1058

1.1043

1.0978

1.0985

1.1016

1. 1054

1.1040

1.1115 1.1120

1.1063 1.1080

1.1097 1.1100

1.1141 1.1140

1.1188 1.1211

1.1131 1.1144

50

70

85

90

1. 1513

1, 1399

1. 1448

1. 1502

1. 1414

95 (tip) 1.1571

Stage Overall Performance for Inlet Circumferential Distortion

% Speed	<b>W√</b> θ / δ	P <sub>13</sub> /P <sub>4</sub>	η	$T_{13}/T_4$
80	147.35	1.2639	83.4	1.0832
80	136.69	1.2800	84.8	1.0864
80	127.02	1.2838	82.7	1.0895
90	166.03	1.3450	83.9	1.1054
90	156.12	1.3648	84.9	1.1095
90	148.96	1.3736	84.9	1.1120
95	174.19	1.3923	83.9	1.1185
95	162.90	1.4200	85.7	1.1231
95	159.93	1.4231	85.3	1.1245

### APPENDIX 6

Broadband Noise Pressure Levels in One-Third-Octave Bands

Broadband Noise Pressure Levels (dB, 0.0002 dyne/cm2) in 1/3-Octave Bands

			(	<b>,</b>	uj 110	, 0111-, 1	11 1/0	Ctave 1	anus		
560- 710	710- 890	890- 1120	1120- 1400	1400- 1800	1800- 2240	2240- 2810	2810- 3540	3540- 4470	4470- 5620	5620- 7100	7100- 8900
117.2	117.2	117.2	117.4	117.5	117.8	118.4	131.4	120. 0	120.5	121.2	117.7
119.5	117.3	116.7	115.8	116.2	115.6	118.4	118.2	117.4	118.8	119.7	115.2
117.2	116.6	115.9	115.5	115.0	114.8	118.4	116.4	115.4	117.9	114.6	113.9
116.1	113.6	115.4	114.9	115.0	117.7	118.5	117.3	118.4	119.3	117.7	116.4
112.7	112,2	112.2	112.2	114.0	115.9	114.4	115.7	119.1	117.0	117.3	117.0
560- 710	710- 890	890- 1120	1120- 1400	1400- 1800	1800- 2240	2240 	2810- <u>3540</u>	3540- 4470	4470- 5600	5600- 7100	7100- 8900
118.4	118.2	117.9	117.9	118.1	118.2	119.2	125.8	121.8	121.1	122.3	118.5
118.1	117.2	116.9	116.6	116.2	116.8	120.0	126.3	121.6	120.4	121.4	117.9
118.4	117.6	117.2	116.9	116.4	116.8	119.8	121.7	118.8	120.0	121.5	117.5
117.5	117.0	116.9	117.0	117.1	118.1	122.1	122.1	120.9	123.3	120.5	120.2
114.8	114.2	114.1	114.3	114.6	117.0	120.5	118.1	119.9	121.8	119.8	119.0
111.4	112.2	112.8	113.0	116.4	119.5	119,0	121.0	124.9	124.6	123.6	121.9
560- 710	710- 	890- 1120	1120- 1400	1400- 1800	1800- <u>2240</u>	2240- 	2810- <u>3540</u>	3540- 4470	4470- 	5620- 7100	7100- 8900
118.4	118,1	117.8	118.0	118.6	119.3	119.3	125.7	122.0	121.4	122.0	118.4
117.7	117.3	116.8	116.2	115. 7	116.2	119.	122.0	118.5	119.3	119.7	116.2
116.9	116.3	115.8	116.0	115.8	118.2	123.0	120.0	121.1	124.9	121.1	121.3
116.0	115.3	115.1	115.8	116.9	119.9	121.9	121.4	124.0	125.4	123.7	122.4
111.4	113,1	114.7	115.6	117.3	119.6	119.9	121.0	123.6	122.9	122.5	120.7
	710 117.2 119.5 117.2 116.1 112.7  560- 710 118.4 117.5 114.8 ;11.4  560- 710 118.4 117.7 116.9 116.0	710         890           117.2         117.2           119.5         117.3           117.2         116.6           116.1         115.6           112.7         112.2           560-         710-           710         890           118.4         117.2           118.4         117.6           117.5         117.0           114.8         114.2           560-         710-           710         890           118.4         118.1           117.7         117.3           116.9         116.3           116.0         115.3	710         890         1120           117.2         117.2         117.2           119.5         117.3         116.7           117.2         116.6         115.9           116.1         115.6         115.4           112.7         112.2         112.2           560-         710-         890-           710         890         1120           118.4         118.2         117.9           118.4         117.6         117.2           117.5         117.0         116.9           114.8         114.2         114.1           11.4         112.2         112.8           560-         710-         890-           710         890         1120           118.4         118.1         117.8           117.7         117.3         116.8           116.9         116.3         115.8           116.0         115.3         115.1	710         890         1120         1400           117.2         117.2         117.4           119.5         117.3         116.7         115.8           117.2         116.6         115.9         115.5           116.1         115.6         115.4         114.9           112.7         112.2         112.2         112.2           560-         710-         890-         1120-           710         890         1120         1400           118.4         118.2         117.9         117.9           118.1         117.2         116.9         116.6           118.4         117.6         117.2         116.9           117.5         117.0         116.9         117.0           114.8         114.2         114.1         114.3           11.4         112.2         112.8         113.0           560-         710-         890-         1120-           710         890         1120         1400           118.4         118.1         117.8         118.0           117.7         117.3         116.8         116.2           116.9         116.3         115.8         116.	710         890         1120         1400         1800           117.2         117.2         117.4         117.5           119.5         117.3         116.7         115.8         116.2           117.2         116.6         115.9         115.5         115.0           116.1         115.6         115.4         114.9         115.0           112.7         112.2         112.2         112.2         114.0           560-         710-         890-         1120-         1400-           710         890         1120-         1400-         1800-           118.4         118.2         117.9         117.9         118.1           117.5         117.0         116.9         116.6         116.2           118.4         117.0         116.9         117.0         117.1           114.8         114.2         114.1         114.3         114.6           11.4         112.2         112.8         113.0         116.4           560-         710-         890-         1120-         1400-           710         890         1120-         1400-         1800-           118.4         118.1         117.8	710         890         1120         1400         1800         2240           117.2         117.2         117.4         117.5         117.8           119.5         117.3         116.7         115.8         116.2         115.6           117.2         116.6         115.9         115.5         115.0         114.8           116.1         115.6         115.4         114.9         115.0         117.7           112.7         112.2         112.2         112.2         114.0         115.9           560-710-890-1120-1400-1800-2240         118.4         118.2         117.9         118.1         118.2           118.4         118.2         117.9         117.9         118.1         118.2           118.4         117.6         117.2         116.9         116.4         116.8           117.5         117.0         116.9         117.0         117.1         118.1           114.8         114.2         114.1         114.3         114.6         117.0           111.4         112.2         112.8         113.0         116.4         119.5           560-710         890         1120         1400         1800         2240	710         890         1120         1400         1800         2240         2810           117.2         117.2         117.4         117.5         117.8         118.4           119.5         117.3         116.7         115.8         116.2         115.6         118.4           117.2         116.6         115.9         115.5         115.0         114.8         118.4           116.1         115.6         115.4         114.9         115.0         117.7         118.5           112.7         112.2         112.2         112.0         114.0         115.9         114.4           560- 710- 890 1120 1120- 116.9         1120- 11400 116.0         1800- 118.1         2240- 2810           118.4         117.2         116.9         116.6         116.2         116.8         120.0           118.4         117.6         117.2         116.9         116.4         116.8         119.8           117.5         117.0         116.9         117.0         117.1         118.1         122.1           114.8         114.2         114.1         114.3         114.6         117.0         120.5           114.4         112.2         112.8	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

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#### APPENDIX 7

**Derivation of Sound Power Level Equation** 

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#### APPENDIX 7

Derivation of Sound Power Level Equation

The acoustic power is given by:

(1)

w = Ia

where I =  $\frac{S^2}{4z}$  for random incident broadband sound, such as exists in

a reverberation room

a = total room absorption in cm<sup>2</sup> units, obtained by multiplying the area of each surface by it respective absorption coefficient

Converting power to watts, and a to square foot units and substituting the expression for I yields

$$w = \frac{9.3 \times 10^{-7} a s^2}{4 \pi} \tag{2}$$

In a relatively reverberant environment, the reverberation time H is given by

$$H = \frac{0.05v}{a}$$

where a = total room absorption in sabins, ft<sup>2</sup> units

Substituting in Equation (2) yields

$$w = \frac{9.3 \times 10^{-7} \times .05 \text{ vS}^2}{4zH}$$
 (3)

Taking the logarithm to the base 10 of both sides of the above equation results in

$$10 \log w = 20 \log S + 10 \log v - 50 + 10 \log 9.3 + 10 \log 5$$

$$-10 \log 4z - 10 \log H$$
(4)

Defining PWL = 10 log  $\frac{\mathbf{w}}{\mathbf{wo}}$ 

$$SPL = 20 \log \frac{S}{S_0}$$

Substituting the above into Equation (4) yields the equation for the power level in terms of the average sound pressure level, the volume of the reverberant plenum, and the reverberation time. Thus, using z=40.8 rayls we obtain

$$PWI_{c} = SPL + 10 \log v - 10 \log H - 19.4 dB$$
 (5)